Corruption and poor governance in the forests of Indonesia and Papua New Guinea

A thesis submitted for the degree of Doctor of Philosophy of The Australian National University

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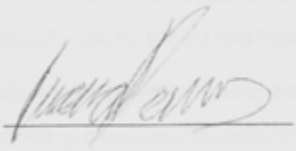
Statement of Originality

I confirm that the material contained in this thesis is my own original work, and that, to the best of my knowledge, it contains no material previously published or written by another person, except where due reference is made in the text.



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Abstract

Corruption and poor governance are well-documented problems in the management of forests around the world, and are widely cited to be contributing to deforestation and forest degradation. Whilst the link between corruption and poor governance and deforestation is widely assumed, few studies have analysed the mechanisms by which corruption and poor governance may be impacting forest management and contributing to deforestation and degradation. That is, there has been research that supports the claim that corruption contributes to deforestation, however many of these studies have utilised measures of corruption, such as nationally-aggregated corruption perceptions indexes, which hide a lot of the variation in types of corruption. Localised case studies of corruption and poor governance, which have identified many complexities in types of corruption, have often not focused on the impact on forest management. These two streams of research demonstrate that corruption and poor governance are multifaceted phenomena and may impact on forests in many diverse and context-specific ways. This thesis seeks therefore to integrate these two streams of research by addressing the questions 'Does corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? And if so, how?'

Indonesia and Papua New Guinea (PNG) were selected as case studies for this research due to the important forest reserves and the high prevalence of corruption and poor governance. Mixed methods were adopted in this thesis. Grounded theory methodology, which provides a systematic and rigorous approach to generating theories form the data, was used to analyse the process of forest governance and corruption. Based on the data collected from semi-structured interviews and government and media reports, two grounded theories were developed on forest governance and on corruption in the forests. The core process of forest governance that emerged from the data was one of a process of negotiation over if, and how, regulations were implemented. The grounded theory on corruption also highlights the complex systems and relationships that support, or demand, corrupt exchanges. The findings from the two grounded theories were then drawn on in the second part of this thesis which adopted a case-study approach to analyse if and how corruption and poor governance contribute to deforestation and forest degradation in Indonesia and PNG.

This analysis focuses on four stages of forest management—being land-use planning, concession allocation, monitoring and enforcing and the distribution of benefits—to identify what types of corruption and poor governance is occurring, and how this may impact upon the forests. The findings point to some very complex relationships between corruption, poor governance and deforestation and forest degradation in the case study countries, and highlight how many other factors, such as regulatory quality, need to be understood in order to determine whether any specific corrupt exchange contributes to deforestation and degradation in the case study countries. My thesis is that whilst corruption and poor governance do not necessarily lead to more area of forestland being cleared and converted, corruption and poor governance do contribute to the wider problems associated with deforestation, such as unsustainable forest exploitation and environmental injustices. These findings have implications for current efforts to improve forest governance as a means to reduce deforestation and forest degradation in Indonesia and Papua New Guinea.

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Chapter 1

Introduction

1.1 Introduction

High rates of deforestation and forest degradation are widely seen as one of the greatest environmental and developmental challenges facing the globe today (United Nations, 2011). As forests are cut down and converted vital ecological services are lost, to the detriment of local, national and international communities (Sunderlin et al., 2005; Wood, 1990). Poor governance, including corruption, illegal logging and lack of accountability, have been well-documented problems affecting the management of the world's forest resources (Colchester et al., 2006; GTZ, 2009; World Bank, 2006b). Indeed, corruption and poor governance are increasingly reported to be causing deforestation and forest degradation (Saunders and Nussbaum, 2008; Smith et al., 2003b; World Bank, 2006a, b). Poor governance is not only thought to cause deforestation and forest degradation, but to contribute to the wider problems of poor forest management, such as the failure of forest exploitation to contribute to development of communities in forested areas (CELCoR and ACF, 2006; Wollenberg et al., 2004), and more generally, lower economic growth of countries with significant natural resources (Kolstad and Søreide, 2009; Sachs and Warner, 2001).[1] Yet despite widespread claims about the various impacts of corruption and poor governance on forests, the research that exists paints a more complicated picture.

There has been research to support the claim that poor governance and higher levels of corruption may contribute to higher rates of deforestation and forest degradation (for example Barbier et al., 2005; Bulte et al., 2007; Smith et al., 2003b; Umemiya et al., 2010). Many of these studies have drawn their conclusions after comparing nationally aggregated governance or corruption indices, such as the Worldwide Governance Indicators (WGI) or Transparency International's Corruption Perception Index (TI CPI), to

[1] The study by Sachs and Warner (2001) does not refer to forests specifically. Their analysis is based on natural resources more generally.

different amounts of land-use change in different regions. Whilst the results of these studies do provide some support for the claims above, there are nonetheless problems, particularly because of the use of these indices. That is, quantifying the quality of governance in any country is incredibly difficult, and there has been well-documented concern over the accuracy of perceptions of governance as a measure of 'true' quality of governance (Olken, 2009; Thomas, 2010). The difficulties associated with this data means that the results must be treated with caution. Secondly, being aggregated at a national level, these indices hide much of the variation in the nature and process of governance that may be occurring across different countries or in different regions within a country. This limits the ability of these studies to describe the internal, context-specific mechanisms by which different governance factors impact upon forest cover. In order to understand the potential ways in which different governance factors may be contributing to deforestation and forest degradation, more context-specific research is needed.

A second stream of research has sought to understand these more context-specific aspects of forest governance. This literature describes complex and sometimes conflicting causes and consequences of corruption and poor governance. For example, research into the process of decentralisation has identified many different factors, including income, social capital, corruption, and distribution of authority, which all impact upon the nature and quality of the decentralisation process (Barr et al., 2006; Resosudarmo, 2004; Xu and Ribot, 2004). Corruption, as one particular feature of poor governance, has also been shown to be a multifaceted phenomenon. Research into corruption in forest areas has identified multiple aspects involving political, economic and cultural dimensions (Dauvergne, 1994; Gupta, 2005; Harris, 2003). And corruption is often described as the dominant institution of resource management in many countries involving complex formal and informal rules, relationships and negotiations (McCarthy, 2002a; Robbins, 2000). This research has provided nuance and depth for understanding what corruption and poor governance may be and how different governance features operate in different contexts. Such understanding makes it difficult to point to single general relationships between features of poor governance, corruption and deforestation and forest degradation. These

studies have been far less focused on understanding the specific impacts of different aspects of forest governance and corruption on forest cover itself.

There is a need to integrate these different streams of research, to not only build localised knowledge of the governance context and corruption in different forest areas, but to investigate how this may be contributing to deforestation and forest degradation. In order to address this gap, therefore, the research I present in this thesis seeks to answer the question 'Does, and if so how does, corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea?'

1.2 Background and statement of problem

Deforestation and forest degradation[2] have attracted global concern because of the many wider environmental and social problems associated with forest loss, including biodiversity loss (Brooks et al., 2002; Turner, 1996), watershed damage and river pollution (Bruijnzeel, 2004; Cheng et al., 2002), and green-house gas emissions (van der Werf et al., 2009). It is these wider problems, and particularly the emissions from deforestation and forest degradation and their contribution to global climate change that has brought renewed attention and enthusiasm towards reducing deforestation and forest degradation in many countries, including in Indonesia and Papua New Guinea (PNG).

Increasingly, efforts to reduce deforestation and forest degradation have focused on the problem of poor governance, aspects of which have been well-documented in many countries with high rates of deforestation (Global Witness, 2007; Humphreys, 2006; Siebert and Elwert, 2004; Smith et al., 2003a; Wardell and Lund, 2006). Interest and concern over the problem of poor governance in the forests reflects a trend in the development agenda more broadly. In the development literature, the concept of governance emerged in recognition that a variety of actors, beyond the government, are

[2]Whilst there are many variations in definitions, deforestation generally refers to 'the conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10 per cent threshold' (FAO, 2011, p. 11). Forest degradation is the 'long term reduction of the overall potential supply of benefits from the forest, which includes wood, biodiversity and any other product or service' (FAO, 2011, p. 11).

engaged in, and responsible for the development process (Nanda, 2006; Stoker, 1998). Governance itself is broadly understood to be 'about the rules of collective decision-making in settings where there are a plurality of actors or organizations and where no formal control system can dictate the terms of the relationship between these actors and organizations' (Chhotray and Stoker, 2010, p. 3). Even though governance has become dominant in thinking about development, there are still criticisms of the governance concept. This criticism is mainly to do with the way in which the governance has been used, particularly by development agencies like the World Bank that have no mandate to interfere with political processes and yet have been able to force government reforms on developing countries as a form of conditionality for aid (Nanda, 2006). Despite such criticisms, governance has remained a ubiquitous part of the development literature and has received growing attention from researchers and practitioners seeking to improve forest management (Colchester et al., 2006; World Bank, 2002).

Accompanying the interest in governance as part of the development agenda has been a growing body of research into different aspects of forest governance. Efforts to understand forest governance have typically focused on conceptualisations and practice of global environmental governance (Paterson et al., 2003), or have focused on a few key aspects of governance that are related to current issues in forest management. These include the governance of community-managed forests (Agrawal and Chhatre, 2006; Ishihara and Pascual, 2009), or changes to the governance systems following the decentralisation of forest management (Andersson et al., 2006; Batterbury and Fernando, 2006; McCarthy, 2002b). Issues to do with governance and illegal activities have also received considerable attention in many different countries (McCarthy, 2011; Richards et al., 2003; Smith et al., 2003a; Tacconi, 2007c).

Some of these studies have also demonstrated a link between specific governance features and higher rates of deforestation and forest degradation (Palmer, 2001; Smith et al., 2006). However, more generally, this type of research has highlighted how complex and dynamic the process of governing forest resources can be in different contexts. Whilst this is vital to our understanding of governance in different contexts, much of this research has focused on several key aspects of forest governance, such as decentralisation

or illegal logging. There has been less attention towards identifying the concepts that best describe the process of governance as local actors practice it. That is, much of the research on governance has been directed by international concerns, for example, concerns over the global illegal logging. However, this top-down approach may fail to identify key governance processes that are most relevant to explaining the governance process in the field. This is an important gap, because local actors are likely to have their own perceptions about key governance features, and identifying local processes may provide new insights for governance research generally.

This ground-up perspective is particularly lacking in research into the normative aspects of good and poor governance. Generally, good governance is 'epitomized by predictable, open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law' (World Bank, 1994, p. vii). Poor or weak governance is seen as the absence of these features. The World Bank has used these characteristics of good governance in their Worldwide Governance Indicators (WGI). The WGI are built on six dimensions of governance—voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption—and through the collection of multiple surveys, expert interviews and market data, the World Bank have sought to quantify and compare the quality of governance in different countries. These indicators, either as a whole 'quality of governance' score, or as rankings on the individual factors, for example rule of law or voice and accountability, are dominant concepts in governance research more broadly, and indicators such as the WGI have been widely used by researchers seeking to understand the causes and consequences of good (or poor) governance in different countries and contexts (Barbier, 2004; Bulte et al., 2007; Umemiya et al., 2010).

Whilst poor governance generally, and specific indices like the WGI, are commonly referred to and used in forest governance research, there remain some gaps and criticisms of these ideas and their application. Firstly, and practically, the notion of poor governance has been criticised for failing to give any guidance as to the relative importance of

different factors (Grindle, 2007). This is important, as forest governance research has typically focused on individual factors, without any clear idea of which factors may be more or less important in any specific context. Secondly, the WGI have also come under some criticism for the high standard errors and more problematically for issues to do with construct validity (Thomas, 2010). Specifically, Thomas has criticised the WGI for changing definitions of the indicators and for failing to create internal validity of these measures by appealing to theory. The result of this, according to Thomas, is that these indicators do not measure governance at all; rather, they represent 'complex atheoretical and as yet poorly articulated hypotheses for which no evidence has been advanced' (Thomas, 2010, p. 50).[3] The implication of this is that the research pointing to the links between different governance features and deforestation and forest degradation, particularly those based on the WGI, must be treated with caution.

Thirdly, and more generally, governance has been criticised because many of the features that are ascribed to well-governed systems are features that reflect ideals of the Western developed world in which they were created; these features might not be relevant to understanding the processes that occur in developing, non-Western countries (Nanda, 2006). This highlights the fact that there remain some gaps in our understanding about the nature of poor governance. More research is needed to understand the context-specific nature of the governance process, and what specific features may constitute poor governance in different contexts.

The challenges and gaps in our understanding of the concepts of poor governance extend to research on specific features of poor governance, including corruption. As one particular feature of poor governance, corruption has been attracting growing concern (Williams et al., 2011; World Bank, 2006a; Wright et al., 2007). Corruption is not only prevalent in many forested countries, but is also widely reported to contribute to deforestation and forest degradation (Barnett, 1990a; GTZ, 2009; Urrunaga et al., 2012). However, corruption is a multifaceted phenomenon and considerable debate remains

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[3]Several other authors have also challenged the use of WGI, for example see Christiane and Oman (2006) and Kurtz and Schrank (2007).

about what different types of corruption happen in any particular context, and how these may impact upon forests.

Broadly, corruption is defined as the 'abuse of entrusted power for private gain' (Pope, 1996).[4] This is the most common definition, but it is nonetheless problematic. There is some debate over what activities may constitute 'abuse', given that identifying an abuse will involve considerations of culture and context which vary greatly across space and time (for example see Larmour, 2008; Larmour and Wolanin, 2001b). Secondly, and in relation to criticisms above of the concept of poor governance, definitions like this are often seen as reflective of Western bureaucratic ideals, in which the separation of public and private interests is clear. This separation is not necessarily the case in other contexts (Huntington, 2002). Finally, this definition does little to describe the more complex range of activities that constitute corrupt behaviour, and how corruption may interact with other (often illegal) activities, such as fraud, nepotism and embezzlement. For example, corruption can include a small bribe paid for legally harvested timber to pass more swiftly through a police checkpoint. Corruption can also involve millions of dollars being paid to government officials to re-zone thousands of ha of forested lands for development. These are both corrupt exchanges, but they may have different drivers and impacts, differences not captured by such a broad definition as the one above. There have been attempts to further categorise types of corruption, such as petty, grand, bureaucratic or political corruption; however, these categories often add to the confusion over different types of corruption.[5] Whilst no single definition is likely to be sufficiently comprehensive or specific (Harris, 2003), such definitional challenges highlight the difficulty of investigating the nature of corruption in the forests and analysing its impacts.

Despite these definitional complexities, there have been many studies seeking to identify the causes and consequences of corruption more generally and in the forests specifically.

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[4] This definition (and variations of it) are used by the World Bank, the IMF and other international organisations.

[5] For example, the term grand corruption is often used to describe large payments to bureaucrats as well as referring to political corruption, which in other articles is used to refer to corruption aimed at changing the policies.

Research on forests has shown that higher levels of corruption are associated with higher amounts of deforestation and forest degradation (Barbier et al., 2005; Bulte et al., 2007; Burgess et al., 2012; Smith et al., 2003b to name a few). However, some of these findings have been contested due to methodological inconsistencies (Aisbett et al., 2012; Barrett et al., 2006). Importantly, there have been several different mechanisms by which different types of corruption have been shown to impact on forests. For example, Bulte and colleagues (2007) found that corrupt payments to politicians and legitimate lobbying (they did not distinguish between the two) led to higher deforestation by increasing subsidies for inefficient land uses. Burgess and colleagues(Burgess et al., 2012), on the other hand, focused on local-level political cycles to show that rates of deforestation increased in the lead-up to elections, which they argued was a response to the corrupt interests and campaign finance.

These findings point towards a link between corruption and deforestation, and even highlight some of the potential mechanisms by which corruption is contributing to deforestation and forest degradation, but the results are nonetheless problematic. Firstly, the statistical studies mentioned above have reported relationships based on cross-country comparisons, using data from various indices, such as the Transparency International's CPI. Like the WGI, there is some concern about the quality of these data and the extent to which perceptions of the prevalence of corruption actual match the reality of corruption. For example, in a study of the difference between perceived and actual corruption on a small infrastructure project in Indonesia, Olken (2009) found there was no reason to expect there to be a relationship between corruption and corruption perception. Secondly, many of these indices are aggregated nationally, which hides the great variation in types of corruption, which may be occurring across or within different countries. Although these problems do not necessarily negate the findings of all this research, they do highlight the fact that some gaps remain in our understanding about the potential mechanisms by which corruption may be contributing to deforestation and forest degradation. There is need to incorporate more detailed, locally specific understanding of corruption.

The need for more locally specific efforts to understand the mechanisms of corruption is supported by the fact that a substantial amount of research into corruption has highlighted its complex and context-specific and multifaceted aspects. That is, in contrast to the nationally aggregated numbers, these studies have pointed to complex and multifaceted problems associated with corruption. For example, following decentralisation in Indonesia, the structures of formal and informal authority were negotiated between politicians, local communities, and local entrepreneurs, leading to what was described at the time as the emergence of volatile socio-legal networks that incorporated corrupt systems (McCarthy, 2002a, 2004). Research in PNG has documented the high-level collusion between national and provincial politicians and multinational logging and agricultural companies that enabled companies to get illegal logging licenses and to undervalue their timber and avoid paying millions of dollars in taxes. Indeed, corruption and the process of licensing forest exploitation has been documented and detailed in many different contexts (Kolstad and Søreide, 2009; Poffenberger, 1997; Soreide, 2007), involving local bureaucrats and national politicians. A study of the management of timber booms across four south-east Asian countries in the 1990s drew attention to the corrupt processes of rent-seizing, documenting how politicians and their associates were able to capture the authority of the forest bureaucracy, resulting in the breakdown of the institutions of government tasked with sustainably managing timber resources (Ross, 2001). These studies, and many more, all provide important and interrelated insights into different dimensions of the corruption phenomenon and its relationship to aspects of forest use. However, few of these studies have sought to relate these more complex and dynamic patterns of corruption to actual impacts on forest cover.

Given that there is such a strong focus in the development agenda on improving governance, reducing corruption and reducing global rates of deforestation and forest degradation, there is a need for continued research into these topics. This involves further research into the context-specific nature of corruption and poor governance, and particularly how this may impact the management of forests. As stated above therefore, to contribute to this literature, the research presented in this thesis seeks, to answer the

questions 'Do corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea?'

1.3 Aim and scope

The ultimate aim of this research is to contribute to an increased understanding about corruption and poor governance in the forest sectors of Indonesia and Papua New Guinea, and the impact on forest management and I adopt a mixed-methods approach. There is already a considerable amount of research into various aspects of governance and corruption, some of which I introduced earlier. After an initial scoping period in Indonesia, I saw that there was significant space for a more 'ground-up' approach to understanding what corruption and poor governance was to the people who are actually managing resources. To this end, I have adopted the methodology of grounded theory to examine the topic of governance and corruption. My specific focus and aim in adopting the grounded theory approach for this part of my research was not only to contribute broadly to a theory of governance, particularly poor governance, but specifically to understand the processes from the people involved. The other method adopted was that of the case-study approach. The aim of this part of the research was to understand how the forests, and the issues surrounding forest management, influence and are influenced by governance processes. There are likely to be many context-specific and interrelated mechanisms by which corruption and poor governance affect forest management. By understanding more specifically how some of these mechanisms work, there will be potential to contribute to important research understanding the impact of corruption and poor governance.

Along with the intention of contributing to the literature on corruption, another aim of this thesis is to contribute to the literature on the methodology of conducting qualitative research on sensitive topics like corruption. The sensitivity of any particular topic depends on the social context, but broadly, a topic is considered sensitive if the collection, holding or dissemination of research material poses a potential threat to either the researched or researcher (Leitão, 2010, p. 5). Sensitive research topics pose particular ethical, legal and practical methodological challenges. The considerable amount of literature dedicated to

the challenges of conducting sensitive research is dominated by topics from medical science, and in research on the traumatic impacts of natural disasters (Hinds, 1996; Klocker, 2012; van Zijll de Jong et al., 2011). Politically sensitive research topics, such as corruption and other forms of illegality, pose some different ethical and methodological challenges. These have not been well discussed in the literature. In addition, the implications of politically sensitive research for grounded theory have not been well documented. By providing detailed description and continuous reflection on the research methodology and methods used in this research, I aim to contribute to a growing body of literature on how to conduct and evaluate sensitive research.

In order to address the research gaps surrounding the concepts of governance and corruption, a research approach was needed that not only enabled the identification and development of concepts and process in a local context, but that was also able to accommodate the potential challenges of this sensitive topic. Partly for this reason I adopted the grounded theory approach. Grounded theory methodology, as 'discovered' by Glaser and Strauss (1967), was born out of what they saw as an embarrassing gap between existing 'grand' social theories and the reality they sought to describe. They developed a research methodology that could enable the analyst to develop theories that emerge from the specific context, making them relevant and explanatory in the real world. The research presented here involves the development of two grounded theories: one on forest governance and the other on corruption, both based on data collected in Indonesia and Papua New Guinea (PNG).

Given the context-specific nature of this policy problem, I needed to get local country-specific information. To do this, I followed the case-study approach, with Indonesia, particularly Central Kalimantan as my main case, and PNG as a secondary case. Case studies are a well-established research strategy where the focus is on a case in 'its own right, and taking its context into account' (Robson, 2002). To some, the aim of case-study research is to be able to 'generalise across larger set of units' (Gerring, 2004, p. 341) , but the ability to generalise findings is not a necessary aim of all case-study research. By comparison, a key figure in the revival of case-study as serious research approach, Yin, defines case-study as strategy for doing research when three conditions are met. Firstly,

case-study is appropriate when the researcher has little control over events. Secondly, the research is attempting to understand a contemporary phenomenon in a real life context, and lastly, when the research seeks to determine how and why a phenomenon is occurring (Yin, 2009). That is, the case-study approach is a key approach when seeking to identify causal mechanisms, in detail, in a real life context. This research on the mechanisms by which corruption and poor governance lead to deforestation and forest degradation fulfils the above three conditions, which supports the use of the case-study approach.

One of the key factors in case-study research is the criteria used for case selection. The criteria used for case selection depend on the type of research being conducted and have great implications for the quality of the case-study research. For this research, cases were selected as inherent or key case studies (Stake, 1995). This means they were selected because of interest in that case alone, rather than as representative of some larger group, or to test a specific hypothesis.

That is, these countries were selected as case studies for this research because both countries have conditions of poor governance and significant forest resources. Indonesia has not only extensive forests—over 88 million hectares (ha)—but also incredibly diverse forests, and has been labelled one of Conservation International's Biodiversity mega-countries (Conservation International, 2013; FAO, 2010). The remaining forests of Central Kalimantan are particularly the focus of this research because of the selection of Central Kalimantan as the pilot province for Indonesia's efforts to Reduce Emissions from Deforestation and Forest Degradation (REDD+). Papua New Guinea, with far less forest cover—33 million ha—is also mega-diverse, with an estimate 6–7% of the world's known species on less than 1% of its land (Shearman et al., 2008). Estimates of forest-dependent peoples are difficult to come by,[6] however, for in Indonesia it is thought that (in 1995) between 80–95 million people were directly dependent on forest resources (no figures exist for Central Kalimantan); in Papua New Guinea approximately 80% of the population

[6]Part of this difficulty is due to the varying definitions over what constitutes 'dependency'. See Fisher et al. (1997) for a full discussion of this term.

(4.16 million people) directly depend on forest lands (Iamo et al., 2008). Despite this, both countries have also experienced high rates of deforestation and forest degradation, with Indonesia's being one of the highest in the world (FAO, 2011).[7] Finally, corruption and poor governance have been well-documented features of forest management in Indonesia (Barr, 2000; Barr et al., 2010b; Dauvergne, 1994; Poffenberger, 1997; Smith et al., 2003a) and PNG (Anon, 1990; ODI, 2007) for many decades.

Even though these countries both have high-value forests, and high levels of corruption, they are nonetheless incredibly different countries with different environments, cultures and political structures. Opportunities for direct comparison were therefore limited. Rather, following the principles of grounded theory methodology, the aim of the comparison was to compare individual concepts in these different contexts rather than comparing the contexts themselves. This is part of the constant comparison method of grounded theory methodology, where comparison across different contexts is advocated to build nuance and depth into the theory (Glaser, 1978). I used several levels of comparison in this thesis, including within Indonesia by selecting different districts and then cross-country comparison to PNG.

The final results presented in this thesis are based on ten months of fieldwork in Indonesia and almost four months in PNG. Interviews were semi-structured and lasted for between one and three hours. In Indonesia, the participants included representatives from local (three districts), provincial (Central Kalimantan) and national governments. Representatives from local and international non-government organisations (NGOs) and from mining, oil palm and forestry companies were also interviewed. In PNG, the majority of interviews were conducted with national level government representatives with a smaller contingent of local officials, NGOs and some company representatives. Overall, 89 interviews were conducted; however, responses from several key informants provided most of the detailed data on corruption. Secondary sources were also used to guide interview questions and supplement information collected by the interviews.

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[7]The rate of deforestation in PNG—700 000 ha have been cleared between 2000 and 2010—has been far lower than the absolute amount (over four million ha) of deforestation in Indonesia.

1.4 Outline

After this introductory chapter, the focus of the next chapter is a more detailed description and justification for the methods used. This includes a justification for the use of mixed-methods, a description and justification for adopting grounded theory methodology; a description of the analysis used to address the main research question and a justification of the selection of the two case-study countries and areas. That chapter also focuses on drawing out the implications of politically sensitive research to grounded theory methodology. The sensitivity of the topic raised important practical and ethical considerations for gaining access to participants, interview techniques and analysis. I have included in that chapter a reflective consideration of how I think I overcame these challenges, and identified one remaining that may influence the results of this thesis. The purpose of this detail is to be as explicit about the process of conducting this research as possible, so that the content of the subsequent chapters can be assessed accordingly. I also describe the analysis process used to address the main research question.

The third and forth chapters provide backgrounds to the two case-study countries. As I said above, Indonesia and Papua New Guinea were selected as inherent case studies. In both of these chapters I provide a brief history of forest use and provide evidence to support the choice of these countries for this research. I also describe several key pieces of legislation and the key administrative structures. These are not meant to be comprehensive descriptions of all relevant regulations. Rather, I focus on issues and regulations that provide important contextual information that is necessary to understand the subsequent chapters of this thesis. I also identify and describe several key governance challenges specific to each country. For Chapter 3 on Indonesia, this is primarily focused on the distribution of authority between a centralised Ministry and the decentralised district governments. I also detail several key pieces of regulations, focusing on the process of land use planning and licensing. In Chapter 4 I focus on the issue of landownership and administration of land and access to forest areas in PNG.

Following from the country descriptions, Chapter 5 presents the results of the grounded theory of forest governance. I begin with a brief review of the development of and key

ideas in the literature on forest governance. Following from the principles of grounded theory, this literature review provides a background theoretical context most relevant to the results of the grounded theory, rather than a more traditional literature review which identifies gaps in existing literature and establishes key concepts for further research. I then describe the results of the grounded theory, identifying the key concepts and processes that emerged out of the data. These key concepts and processes include ambiguity and making the best of the current situation, competing authorities, particularly the difference between formal and informal authority, legitimacy and the process of legitimacy building. One theme in this chapter has to do with analysing the balance and interaction associated with notions of legitimacy and legality, and the process of getting a semblance of legality for operations in forest areas. After describing these concepts and the links between them, in the final section I provide an analysis of the results of my grounded theory in the context of the broader literature on forest governance. I argue that the process of governance is about the negotiation over whether different laws will be implemented, a finding that challenges principles such as rule of law as key features of good governance.

The sixth chapter follows a similar structure to the previous one on governance, presenting the results of the grounded theory of corruption. I begin by providing a review of current ideas about corruption. Again, rather than trying to cover the full literature, that section focuses on several ideas in the literature on corruption that are most related to the results of the grounded theory. Then I present five key concepts that emerged from the data that explain most of the variation in corruption and forest use in these cases. These include concepts of legitimacy, mutual dependency and positioning, which are key to understanding the system of corruption in the forest sector. I also integrate concepts from the previous chapter, to do with semblance of legality and legitimacy, which works to situate this theory of corruption in the broader governance context of the case-study countries. In the final section, I return to the existing theories of corruption to analyse the grounded theory in the context of this broader literature. I argue that it is the systems that support and demand corrupt exchanges that are crucial to understanding the different types and impacts of corruption in the forest sector.

In Chapter 7, I present the results and analysis of the case-study part of this research as I return to the key research question of this thesis. That is, do corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? And if so, how? I begin again with a brief literature review on the main mechanisms by which different factors of governance and corruption have been shown to impact upon forests and forest cover. Then, I look at different stages of decision-making and planning about forests, and analyse the potential contribution of corruption and poor governance to deforestation and forest degradation at that stage. I focus on the impacts to decision-making around issues of sustainable forest management and environmental justice. I argue that rather than necessarily contributing to higher amounts of deforestation and forest degradation, corruption and poor governance affect the quality of the decision-making processes, exacerbating the wider problems associated with forest clearance.

In Chapter 8, I focus on identifying several key policy implications from this research. One of the key aims of this thesis is ultimately to contribute to the policy debate about how to improve governance, and reduce deforestation and forest degradation in Indonesia and PNG. I start the chapter with a brief review of current practices and programs aimed at improving governance as a means to reduce deforestation and forest degradation. I make the argument that improving governance and reducing corruption will not always lead to a reduction in deforestation and forest degradation. Ultimately, the current economic benefits of many activities, such as mining or commercial agriculture remain and will continue to drive some deforestation. However, there are some features of corruption and poor governance that may be targeted by programs aimed at improving governance in a way that helps to address some of the wider problems of deforestation and forest degradation. Given a recurring theme of this thesis is issues to do with legality and the appearance of legality, a key aspect of that chapter is also to present some important ideas in the literature associated with law enforcement in corrupt conditions.

Following a brief summary of the main findings of this research, in the final chapter I also discuss the main challenges that I faced in conducting this research. I reflect on the challenges of writing about sensitive topics. As I described in the methods section, the

implications of sensitive research extend to affecting the write-up of sensitive information. In writing this thesis it was difficult to present the results in a way that was verifiable whilst protecting vital sources of information, such as company names or locations. These sorts of issues can greatly affect how sensitive research is conducted, presented and evaluated and therefore require attention and reflection. I also provide some final recommendations about potential future research, and how this may proceed.

Chapter 2

The challenges of sensitive research topics and grounded theory methodology

2.1 Introduction

There is no research topic that does not have specific methodological challenges, but sensitive topics, such as poor governance, corruption, and deforestation and forest degradation pose significant challenges to collecting and analysing data and presenting research results. Indeed, the challenges of doing sensitive research—when for example participants are 'not brave enough' to answer questions—are perhaps one reason why there has been dominance in the corruption literature on the use of quantitative perception indices. This research therefore involves different methodologies. The later sections of this thesis, where I analyse the mechanisms by which corruption and poor governance contribute to deforestation and forest degradation in the two case-study countries, involves a case-study approach, which I detail later in this chapter.

However, before analysing the impacts of corruption and poor governance, it was necessary to develop more contextual and nuanced information and analysis about corruption, poor governance in Indonesia and Papua New Guinea (PNG). To do this, I required evolving and flexible methods of collecting data and an approach to data analysis that was systematic but accommodating enough to maximise the benefit of having multiple and often conflicting sources of information—a consequence of the sensitivity of the topic of corruption. Grounded theory (GT) methodology, as 'discovered' by Glaser and Strauss 1967, provided a systematic approach to collecting and analysing data to generate theory. This methodology has only rarely been used to address topics such as corruption and poor governance, and never in relation to forest management. GT methodology therefore had the potential to complement existing research on corruption and forest governance in these two countries

This chapter details the research approach of my thesis. I outline the core ideas of GT methodology adopted for this research, focusing specifically on the work of one of its founders, Glaser. Whilst there is a vast amount of literature already written about the GT methodology, there has been less about the specific implications of sensitive topics such as corruption on GT methodology. A key theme of this chapter is therefore to detail the challenges of sensitive topics and the implications of these for generating GT. I focus most of this chapter on the GT methodology, because this formed the basis for two main chapters of this thesis and because it was in the preparation of the GT chapters that I encountered the main methodological challenges. However, as state above, this is a mixed-methods thesis. Following the description of the GT methodology, I outline the methodology used to address the key research question of this thesis. Finally I provide a brief introduction to case-study literature and why these two cases were selected, a theme I pursue in the following two chapters of my thesis.

2.2 Background

2.2.1 Understanding sensitive topics

Broadly, a topic is considered sensitive if 'the collection, holding or dissemination of research material poses a potential threat to either the researched or researcher' (Lee, 1993). Much of the literature on doing sensitive research comes from fields such as medicine and psychology and focuses on the ethical and legal implications for sensitive topics (Cowles, 1988; Zanjani and Rowles, 2012). There has been less discussion of other forms of sensitive research—such as politically sensitive research. This is important because politically sensitive topics are likely to face different ethical, legal and practical challenges. Whilst there are many important ethical and legal implications of this sensitive research, the focus in this chapter is more on the practical considerations, such as how to get people to talk about corruption, or how to analyse the biased and conflicting answers people give. These challenges have potentially major implications for how sensitive research is conducted and what results can be gained.

Firstly, it is important to understand what specifically about this research topic makes it sensitive.[8] The sensitivity of the topic of corruption—in its potential impacts on the interests of political and economically powerful people—is perhaps clear. However, it is important to remember that sensitivity of a topic is highly context-specific. In the case of this research, the broader economic and political conditions in the two case-study countries increased the sensitivity of the topic of corruption and poor governance, particularly in relation to the forest sector. One factor behind selecting this research topic was the growing number of programs aimed at reducing emissions from deforestation and forest degradation (REDD+) in Indonesia and PNG. At the time this research commenced, several countries had committed large amounts of money to Indonesia,[9] and to a lesser extent PNG,[10] to support REDD+ activities. However, in both countries, high rates of deforestation and documented governance challenges have led to widespread condemnation—particularly from vocal international environmental NGOs (CELCoR and ACF, 2006; Greenpeace, 2004). Corruption and poor governance have become important concerns for donors who are considering investing in REDD+ (Skutsch and McCall, 2010a; Williams et al., 2011). Improving governance and reducing deforestation and forest degradation, and improving the international reputation of Indonesia's and PNG's forest sector have become important political and economic issues. The potential risks to the national reputation from NGOs, journalists and researchers publishing critical reports meant that the topic of forest management was also politically and economically sensitive. The nature of this type of politically sensitive topic can have implications for whether and how this research can proceed. For example, the sensitivity of the topic to Indonesia caused considerable delays in getting the necessary permits to conduct this

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[8] Lee (1993) identified three broad threats associated with sensitive research. The first 'intrusive threat' deals with private or stressful areas. The second 'threat of sanction' research 'may reveal information that is stigmatizing or incriminating in some way'. The final threat identified by Lee is 'political threat' and refers to situations where research has implications for the vested interests of the powerful in society.

[9] Indonesia has agreements with Norway (US$1billion); Australia (up to AUD 100 million); and various programs run by the UN, the World Bank and other bilateral programs.

[10] PNG received USD $6.4 million from UN REDD in 2011.

research. Without sufficient time and finances, barriers such as this could have resulted in changes to research topics or location.

The nature of the topic ultimately has implications for the kind of research that is conducted and how this proceeds. That is, the sensitivity of a research topic must be considered from the earliest stages of research. This had two implications for the design of this research. Firstly, it was clear that the sensitivity and hidden nature of the topic would mean that testing pre-determined concepts was likely to be difficult, because it would be difficult to determine what types of information may be available and what types of concepts might be most relevant to the contexts I was studying. A research approach that was flexible and able to accommodate a variety of sources was needed. Secondly, after an initial scoping period in Indonesia, it became clear that many of the broad ideas about corruption and poor governance in the literature did not necessarily match with what seemed to be happening in Indonesia. That is, the reality that I encountered did not seem to be fully described by the existing theory, which is another reason to adopt GT methodology (Tacconi, 1998). It was these two broad factors that led me to apply GT methodology to investigate forest governance and corruption in the case-study countries.

2.2.2 The choice of grounded theory methodology

Grounded theory methodology was borne out of what two sociologists, Glaser and Strauss (1967), saw as the 'embarrassing gap' between grand sociological theory and the real sociological world that it was trying to describe. The methodology they described elaborates a systematic and rigorous approach to generating theories that emerge from the data, rather than the traditional logically deduced theories (Glaser and Strauss, 1967). Based in theories of symbolic interactionism, grounded theorists 'aim to discover patterns and processes and understand how a group of people define, via their social interactions, their reality' (Cutcliffe, 2000, p. 1477). The results of this research approach, according to Glaser and Strauss, are theories that 'fit' with the empirical situation from which they emerge and 'work', in that the theories 'provide us with relevant predictions, explanations, interpretations and applications' (Glaser and Strauss, 1967, p. 61).

GT has thus become a popular methodology, applied to such diverse topics as relationship-building strategies of milk delivery men (Bigus, 1972) and the appraisal of children's pain (Gawronski and Padrini, 2009). It is also well-suited to the particular challenges of politically sensitive topics. This is because several of the strategies described by Glaser and Strauss provide a systematic way to collect data from multiple, varying sources, and analyse these data in a systematic and integrated way. This makes these methods well suited to sensitive research where it is difficult to determine *a priori* what sort of data will be available, and to analyse these data and produce new insights. I discuss this issue in more detail throughout this chapter, particularly in the interviews, and data analysis sections. Overall, these two reasons—firstly to develop potentially new insights and contribute to research on these topics and secondly the suitability of this methodology for sensitive research—guided the selection of this methodology for the part of this research on corruption and forest governance.

Whilst GT methodology has become very popular, criticisms over the nature and approach of GT are still prevalent. One of the key areas of discussion, and criticism, of GT methodology is that it is arguably impossible for theories to truly emerge from the data, rather than reflect the pre-conceived notions of the researcher. Indeed, this is not unique to GT methodology; much of the literature on qualitative inductive methodology warns against being too theoretically pre-determined as it 'may prematurely lock our analytical focus and blind us from imaginative theorising and from revealing new insights and theoretical breakthroughs...'(Andersen and Kragh, 2010, p. 49). However, the criticism of GT methodology is that firstly, by advocating for theories to emerge solely out of the data, there is the potential to waste or repeat existing research. Alternatively, that it is impossible for any analyst to be theoretically blank, meaning that pre-determined concepts necessarily influence the process and restrict the ability of the researcher to actually allow concepts to emerge freely from the data.

In recognition of the difficulty and possible tensions over this issue, Glaser and Strauss have adopted different approaches about how they may incorporate existing theory

without affecting the quality or goal of the GT.[11] Strauss, particularly in later work with Corbin, saw specific reading of relevant existing literature as a tool to stimulate theoretical sensitivity and generate hypothesis (Strauss and Corbin, 1998). To Glaser, specific reading of relevant literature and hypothesis-generating drew close to the theory-testing research. Indeed, Glaser has often been quoted as arguing against literature reviews, saying that 'there is a need not to review any of the literature in the substantive area under study' (Glaser, 1992, p. 31). However, there is some debate, as Glaser (1978) also argued that prior and wide reading is important to understand the general problem area and to alert and sensitise one to a wide range of possibilities. Learning 'what not to know is crucial to maintaining sensitivity to data' (Glaser, 1978, p. 50). However, for both Glaser and Strauss, the methods of constant comparison and theoretical memoing, provided they are conducted systematically, are designed to ensure that the emergent theory is indeed grounded in the data collected and reflects an inductive research approach. In this research, I did conduct a broad review of the literature prior to fieldwork, much of which is presented in Chapters 3 and 4. During the stages of data collection, coding and analysis, I deliberately avoided existing literature, returning again in the final stages of writing this thesis.

Indeed, the methods outlined by Glaser and Strauss provide a detailed plan to systematically develop theory from the data and to ensure that the analyst remains theoretically sensitive. Theoretical sensitivity is about making sure the researcher is sensitive to the data and building theory from the data, and avoids logically deducing theory. The mandate of the analyst is to remain open to what is actually happening (Glaser, 1978, p. 3). This is a key aspect of GT methodology, but it has nonetheless received considerable criticism, particularly in relation to the discussion above, that is, how to incorporate existing theoretical knowledge without interfering with the emerging concepts (Kelle, 2005). In response to this, Glaser and Strauss (in separate ways) sought to

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[11] The broad attraction of grounded theory methodology has resulted in many different versions and understandings of what grounded theories are and how to develop them, leading to some confusion. Even Glaser and Strauss have, since their original partnership, diverged considerably over their intentions for grounded theory (Heath and Cowley, 2004b)

develop strategies that at once accepted the theoretical background knowledge of analysts, whilst ensuring that the results still emerge from the data (Corbin and Strauss, 1990; Glaser, 1978). This is achieved through the careful and systemic coding and analysis of the data, the details of which I discuss below.

Apart from the ideal of theoretical sensitivity, a second key criticism of grounded theories has come from grounded theorists themselves—that the broad attraction of GT methodology has resulted in many different versions and understandings of what grounded theories are and how to develop them, leading to some confusion. On one hand, this confusion has led to criticism, including from Glaser, who has argued that these variations have meant that the title GT has been applied, inappropriately, to include any sort of qualitative research (Simmons, 1995). The problem of methodological blurring such as this, is that it has implications for the practices of sampling, coding, and comparison which, when applied more haphazardly, potentially affect the resultant theory.

Beyond this broad concern over GT methodology and methodological blurring, there are also many more internal criticisms—meaning criticisms by researchers who agree in principle with GT methodology, but have some problem with the way it is conducted. One of the main aspects of this criticism comes from researchers advocating a more constructivist approach to generating theory. That is, whilst Glaser's position is strictly positivist (Glaser, 2002), as GT methodology has evolved, several researchers (Charmaz, 2000; Mills et al., 2006) have developed a constructivist approach to GT. From this constructivist approach, data is the result of an interaction between interviewee and interviewer. Charmaz, who has been a main proponent of constructivist GT, advocated 'keeping the researcher close to the participants through keeping their words intact in the process of analysis,'(Mills et al., 2006, p. 7) as a means to reflect the interaction between participant and researcher in the process. Even though I recognise the attraction and argument of this more constructivist approach, the position I adopt in this thesis lies between these two extremes. In practice, however, to maintain the integrity of the two theories presented (Chapters 5 and 6), the methods that I describe here and applied in my research are based, as closely as possible, to the original text '*Discovering Grounded Theory*' by Glaser and Strauss and the subsequent '*Theoretical Sensitivity*' by Glaser.

Throughout this chapter I identify and justify any steps where the GT methods adopted reflect the work of Strauss and Corbin, or the more constructivist approach.

2.3 Gaining access to participants

The data used to generate the two grounded theories presented in this thesis is primarily based on semi-structured interviews with representatives from the private sector—mining, forestry and plantations—from civil society (national and local NGOs, and communities) and from relevant government departments (Indonesia: district, provincial and national) and several local politicians in Indonesia.[12] Prior to fieldwork, I had conducted reviews of the governance condition in each country, focusing on the distribution of authority in the regulations. I used these reviews to identify key people and organisations that were the initial targets for the interviews. Subsequent participants were either identified following the snowball approach or later, by the process of theoretical sampling. Snowball sampling is used when the population is not well known and when the topic is sensitive (Robson, 2002, p. 266). Snowballing involved asking people to identify other individuals or organisations that might have information and be willing to contribute to my research. Colleagues and friends who had worked in relevant organisation also helped me get in touch with many people. Once potential participants were identified, there was a difficult process of gaining consent. I discuss theoretical sampling in section 2.5.4.

There were several challenges to the process of identifying participants and gaining access to them. This was due to the normal challenges of the so-called gatekeeper and secondly to the specific sensitivities of this topic. Gatekeeper is the term used primarily in ethnographic fields to describe individuals or institutions whose permission may be required for a researcher to gain access to certain populations. The impact of a gatekeeper is not exclusively an issue for sensitive research (for example Reeves, 2010). Many ethnographic studies highlight the role of a gatekeeper in prohibiting or facilitating

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[12] Interviews in Indonesia were conducted between August and December 2010, March-May and July-December, 2011. In PNG interviews were conducted between May and July 2011 and in February 2012.

access to certain communities, such as gaining permission from the head of a village, organisation or company. Gatekeepers may be common and they can have significant implications for the type of data collected. In my research for example, several companies in Indonesia refused to meet, until I had letters of recommendation from the relevant district government departments. District governments, interested in protecting their reputations, only provided recommendations for larger, often international, companies, with better practice. Interviewing people from these larger companies did give me some information, but ideally, meeting staff from companies of various sizes and reputations could have yielded a broader data set. In order to attempt to overcome this challenge, it was important to draw on other contacts or friends who had a more direct line to these smaller companies. I was able to meet with people from several smaller timber companies; however, even this was difficult. In many cases simply being lucky, such as random conversations with strangers in cafés, sitting next to foresters on planes, and just arriving in villages and asking around for someone to meet with me, was often as necessary as pre-identified institutions and professional networks in getting access to people.

In line with the procedures for ethical research and informed consent, when I met potential participants I provided them with a one-page summary of my research and contact details (See Appendix 1). The idea was that this would provide basic information, which participants could use to either ask me further questions or agree/disagree to an interview. In practice, this was made more difficult by the sensitivity of the research topic. Initially I focused on the sensitivity of the topic of corruption, and chose to represent my research by the more general (and less sensitive) topic of governance.[13] However, it was clear in some circumstances that other words were also seen as sensitive. In meeting with the head of one mining company in Indonesia, for example, I noticed that he had underlined only three words of this introduction being 'deforestation and forest degradation' which I had written in the context of REDD+. He then insisted on contacting my university to ensure that I was indeed a researcher, and not a journalist or NGO. In

[13] This was approved by the Human Ethics Research Committee of the Australian National University.

later drafts of this introductory information, I removed this reference to REDD+ in favour of 'forest management'.[14]

It took some time to learn which words might create barriers to people participating in my research in different contexts. Yet this process of rephrasing information in order to gain access to participants was vital to being able to conduct this research. Whilst this was potentially in breach of the principles of informed consent, it was reviewed and approved by the Ethics Committee of the Australian National University. It was approved on the grounds that firstly gaining access would be very difficult without this and secondly, given that people were consenting to be interviewed, participants could refuse to answer questions about these more sensitive topics during any interview.[15]

2.4 Interviews and data

Although gaining access to participants was sometimes challenging, with considerable amount of time 'in the field' I was nonetheless able to interview 87 different people (see Appendix 2 for participant breakdown). Participants who were open and informative were interviewed multiple times. Most interviews lasted between one and two hours, although several group interviews, such as those in communities, lasted up to four hours. In Indonesia a translator or guide accompanied me. The translator was female and from Central Kalimantan, but not from any of the focus districts in my research. As well as Indonesian, she could speak several Dayak languages. This was important, particularly to interview some people from communities. However, the majority of interviews were done in Indonesian. By the end of my time in Indonesia, I was confident enough in my Indonesian to conduct interviews myself. In these interviews, a guide often accompanied me. Having travelled with me to all of the study districts and helped me get contacts, he

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[14] Additional approval for this rephrasing was not sought. I judged that, in keeping with the principles of ethical research, this rephrasing was not an abuse. This was not a breach of principles of ethical research, because during the interviews, we did discuss forest management, rather than just deforestation. Secondly, when I did ask questions using sensitive words like deforestation, respondents could refuse to answer.

[15] In the information provided to participants I explained that they were free to not answer any question or to finish the interview at any time. And at any time (prior to publishing/submitting my thesis) they could contact me and have the records of their interview destroyed.

was also very familiar with my research and was able to assist during the interviews if required. Having another person present was also helpful so that after interviews I could confirm information to make sure I had not misinterpreted key points. Interviews in PNG were all conducted in English.

There are many specific skills required to collect data in cross-cultural, cross-lingual environments. Many qualitative methods guidebooks stress the need to build rapport and employ other strategies to solicit information from participants (Silverman, 2004). This is partly why I used the more flexible semi-structured style of interviews. Initially, this meant allowing participants to pursue broader issues which were most relevant to them and allowed issues to emerge from the interview data, rather than focusing on getting answers to specific questions. This was useful to identify some of the key broader governance problems in Indonesia and PNG. A more informal, conversation-style interview worked well for several reasons. Firstly, from a cultural perspective, I am a younger female, interviewing older men, sometimes in high-level government and private sector positions. Being a respectful, passive listener was an appropriate way for me to interact with people and build rapport. Secondly, I was new to Indonesia and PNG and allowing people to speak freely ensured that I was able to identify topics that were important to people working in this sector. This was also important to ensure that the grounded theories were based on data emergent from those in the field.

Despite the more general conversational style of the interviews, the main focus was generally to collect information about corruption and poor governance related to the following broad topics (See Appendix 3 for more detailed interview questions):

1) The occurrence, nature and characteristics of poor governance and corrupt activities in the forest sector;

2) The broader institutional and governance factors which explain how and why corruption is occurring; and

3) The environmental outcomes of these particular institutional arrangements and corruption.

Whilst corruption is not necessarily a secret phenomenon in Indonesia or PNG, interviewing people about corruption did require some experimentation with interview techniques. There were several different techniques that I used to either get people to talk about corruption, or to keep them talking if they started. Often, as people discussed more general governance challenges, the topic of corruption would enter the conversation freely. In these cases I obviously continued by asking more specific questions. If the participant did not mention or imply corruption, I would introduce it by asking people to make comparisons between the corruption that occurred in the past, or in other provinces, districts or departments. This way, participants could discuss the issue of corruption without necessarily incriminating themselves or other people directly. Often, while people were comfortable to speak generally about corruption, they were less comfortable when I asked more specific questions, and several times participants claimed they were 'not brave enough'; or they shook their head and smiling said, 'I don't know about that'. Some even insisted that corruption no longer existed in the forest sector. Depending on the person, sometimes I would push the issue, stressing that this information was to help me with my thesis and that I was not going to use any names or incriminate any companies for the information that I received. Sometimes this worked; sometimes it did not. This means that although over 82 different people were interviewed, some of the results presented are dependent on the responses of only a few key participants who were open about the topic of corruption.

With more time in the field, interviews were more critical and focused. This was partly because I had a better grasp of the broader governance problems and because the simultaneous process of analysis and coding other interview data had identified key conceptual categories that I pursued more directly. That is, more specific questions were needed to generate the characteristics of these categories that had emerged from the data. In practice however, focusing on specific questions or even challenging people's statements was sometimes difficult. For people who I had met and interviewed several times it was possible to be more critical. For new people, even those that I interviewed towards the end of my fieldwork, it was still sometimes impossible for me to get more

detailed or critical responses. This was dependent on the personality of the person I was interviewing.

In Indonesia, collecting good quality information from interviews was very dependent on the work of the guide and the translator who were helping me. The translator and guide both had experience with foreign researchers and had experience working on the topics of natural resource management. As they became more familiar with my research, they were able to directly encourage people to be more specific in answering my questions and providing more detail. There was, however, a difference in responses and rapport with respondents between when a female translator accompanied me and when the male guide accompanied me. When respondents were avoiding answering my questions, the guide was in a much better position to be able to push those people to provide more details that were relevant to my research. In several interviews, even when I was speaking in Indonesian, people would often answer directly to the guide. When this happened, the fact that he was so familiar with my research meant that he was able to almost take over the interview. I would continue to take notes and prompt certain questions, but stayed out of the conversation as much as possible.

Collecting data on corruption took a considerable amount of time and experimentation, learning how to build rapport, how to ask sensitive questions without causing participants discomfort and even to work out what sort of questions were sensitive in different cultural contexts. Collecting enough information was therefore dependent on being flexible about how I collected data and who from. As I already mentioned, planning the number of participants or the types of data that I would need prior to actually conducting interviews would have been impossible. This is one of the strengths of GT methodology in that, whilst generating GT is dependent on the systematic and rigorous collection and analysis of data, the focus on generating theoretical concepts means that the process is inherently flexible. Any sort of data that contributes to theoretical development is valuable. The methodology allows the generation of a theory from all types of data. The accuracy or comparability of any part of information was less relevant to the final result than the underlying conceptual explanation. This means that the quality of the final theory

will not necessarily be affected by the sometimes accidental and haphazard way of collecting data on a sensitive topic.

Although all types of data can contribute to generating GT, this does not mean that all data is of the same quality. The broader literature on qualitative data collection has many strategies to make sure that data is collected accurately (Silverman, 2004). Recording information accurately the first time is particularly important because of the scarcity of times when people are open about corruption. If I didn't record the information accurately at the time, it would be very difficult to ask people to repeat themselves. The moment would be lost. During all interviews I took notes. Initially, I experimented with not audio-recording the interviews, as I expected that without a recorder, participants would feel more open to speak about corruption or other problems, so I tried occasionally to conduct interviews without a recorder. However, in Indonesia, the language barrier meant that it was difficult to record enough information during the interviews without the audio recording that I could refer back to after the interview. That is, I found that an audio recording was very helpful to ensure that the data was recorded accurately. When asking permission to record interviews, I stressed to the people that any recording was for my benefit only and, like the other research material, it would remain, as far as the law allowed, anonymous. In most cases participants agreed to be recorded. If, during an interview I felt that people were not being open, or if I noticed them glancing at the recorder, I would turn it off and remove it from sight. In Indonesia, if interviews were done in English, I would not record because people did tend to be more open when they were not being recorded. These interviews were some of the most revealing. When people spoke specifically about corruption I would often stop writing because seeing me writing notes made some people uncomfortable. They would change the topic or become very general or non-committal in their answers to my questions. Once the topic changed again, I would continue writing notes. As soon as possible after every interview I would take time to write down all the information that the participants had discussed to ensure that the information was recorded as accurately as possible. When it was not possible to record the interviews, it was possible to check my notes with the notes from either the translator or the guide. I would also always ask for contact details from any participant

and request that if I had further questions or needed clarification that I would be able to contact them again.

Whilst these steps helped to ensure that the data was recorded as accurately as possible, this is different to determining the accuracy of any particular fact. This is potentially another challenge of doing research on topics like corruption, because vested interests may result in biased information and independently verifying facts can be difficult, particularly given the recognition that in social science at least, facts often change (Glaser, 1978). This bias could lead to types of corruption that were seen as less sensitive to respondents, such as small payments to bureaucrats, as being easier to discuss. Types of corruption that were seen as more sensitive, such as payments to elected district heads, remained hidden. This was a challenge in Indonesia, where respondents appeared to speak much more freely about lower-level administrative bribery, but would not admit that there was anything involving higher-level politicians. Being able to understand such situations requires a considerable amount of understanding and awareness of the broader context of data collection, which can be used to assist in the analysis. Indeed, this reflects some of the ideas of the constructivist approach, where the data is seen as being a product of the interaction between researcher and interviewee, meaning a more reflective approach is needed (Charmaz, 2000). Finally, when generating theory, the accuracy of any 'fact' is less important because, through the process of constant comparison and writing memos, the underlying concepts from the data emerge. It is these concepts, not the specific facts, which form the final theory. That is, as Glaser and Strauss argue 'the evidence may not necessarily be accurate beyond a doubt (nor is it even in studies concerned only with accuracy), but the concept is undoubtedly a relevant theoretical abstraction about what is going on in the area studied' (1967, p. 23). This is particularly helpful in providing an analytical tool for sensitive research, such as corruption research, when the accuracy of any fact cannot often be determined.

2.5 Analysing and sampling

As well as identifying participants and collecting data, I was also coding and analysing this data to inform subsequent data collection. The integration of traditionally separate stages

of the research process is one of the core ideas of GT methodology, and is important to ensure that any emergent theory is grounded in the data—thus avoiding risks of logical deduction influencing the GT (Glaser, 1978). This is not to say that I was always integrating these stages to create the methodological 'whole' as Glaser describes. In practice, often particular types of research activities become dominant at different times. Initially, interviews and data collection were the dominant activity until a certain amount of data was available. The research then progressed and I spent more time coding and analysing data. Before I address some of the challenges of integrating these stages, I provide a description of the actual process used to code and analyse data and examples from my actual analysis.

2.5.1 Coding

'The essential relationship between data and theory is a conceptual code' (Glaser, 1978, p. 55). Coding essentially 'fractures' the data and then conceptually groups it again (Strauss and Corbin, 1998, p. 3). The process of coding is not unique to GT methodology. However, unlike deductive coding of qualitative data, which uses pre-determined codes and concepts, for GT codes must emerge from the data. This has been criticised as being incredibly difficult and arguably impossible given the fact that no researcher can be theoretically blank (Kelle, 2005). In contrast, later works by Strauss and Corbin and Glaser have sought to be more specific about how this process can occur without the preconceived concepts being 'forced' onto the data. The steps they advocate involve several stages of coding. Initially, this involved a process of open coding, in which data was analysed line by line and coded in every way possible (Glaser and Strauss, 1967). That is, incidents from the data were coded into many categories, which particularly in the early stages were random ideas that seemed to occur to me as I was reading the data. For example, initial codes included 'problem with regulation', 'lack of coordination across levels of government' and 'building trust?'. According to Glaser this process of open coding is key to maintaining theoretical sensitivity as it assists to remove any pre-conceived concepts (Glaser, 1978, p. 56). This initial coding served to guide subsequent thinking, and the categories from open coding were later refined or dropped as the

research progressed. Indeed, throughout the early stages of data collection and analysis, the number of codes was very flexible. I tended to have many more codes at the beginning of my data collection and following periods of intensive data collection.[16] The number of active codes then reduced as I consolidated codes and categories (see the constant comparison method below).

Through the coding and analysis, categories began to emerge which were core to the process of governance and corruption. These were ideas that often came up in the way people were discussing corruption and governance. Initially I was working on 12 codes for the governance theory and nine codes for the corruption chapter. These included several sub-codes as I began to integrate ideas into more holistic categories. For example 'lack of coordination' had several as sub-codes 'vertical government', 'horizontal government' and 'internal-external'. As these categories emerged, coding became more specific towards these categories—in a process which Strauss and Corbin called axial coding (Corbin and Strauss, 1990). For example, as more data emerged that identified issues of legitimacy and maintaining relationships, I consolidated several of codes about different types of relationships into one larger category of 'managing relationships'. Through the constant comparison (which is described below) and coding of data, the categories became more conceptual and I began to see the specific theoretical properties of these concepts; these, more conceptual codes, included 'legitimacy' and 'negotiation'. Eventually, a 'core variable' emerged, which is a concept that explains the greatest amount of variation (Glaser, 1978, p. 61). Initially I was working with two potential core variables, one being 'maintaining legitimacy' and the other being 'negotiating implementation', and it was only through the process of writing theoretical memos that it became clear how these two concepts were related and how 'negotiating implementation of regulations ' emerged as the core variable (See below for more details on theoretical memos). Coding could then focus on this variable, with the goal of 'saturating' the properties of the core variable and

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[16] For example, due to the difficulty of traveling to the study districts in Indonesia, I would often go for a week or two of intensive data collection and then return to the capital city, Palangkaraya. In Palangkaraya, I would have more time to analyse the data and identify new ideas or target populations. I would then return to the districts to pursue this theoretical sampling.

those other variables that directly impact on the core variable, which Corbin and Strauss (1990) refer to as selective coding. In practice there were several variables that could be considered core variables, and selecting a key process was part of an ongoing analysis that occurred even into the writing stage of this thesis.

2.5.2 Theoretical memos

For Glaser and Strauss, the creative part of generating GT comes from writing theoretical memos. Memos are the write-up of ideas about categories and concepts and their relationships to each other, as they strike the analyst while coding (Glaser, 1978, p. 83). I wrote many memos at all stages of collecting, coding and analysing and even writing up the final chapters of this thesis (See Appendix 4 for more detail on these memos). Ideas for memos were always written in full and these were later transcribed into NVivo and linked to relevant data and codes. Ideas in memos were used to guide further analysis, and were always considered provisional until I was able to check them against current or new data. This meant that the ideas in memos were very fluid, and memos were often revised and even discarded as data collection and analysis continued.

To Glaser and Strauss, theoretical memos are one of the core practices that distinguish GT methodology from other inductive data analysis. To me, one of the major benefits of writing memos was to keep track of ideas, and to force me to be methodical about recording these ideas. Memos became an important tool for maintaining control over the data because they provided a sort of synthesis of ideas from the data. Secondly, given the nature of the topic of corruption, memos were important to force me to be explicit about ideas. That is, because of the inherent scandal of corruption and the way that information about corruption (or potential corruption) is reported and discussed in general, it is possible for this type of information to become dominant. Getting ideas onto paper meant that I could then systematically compare these ideas with the rest of data. This ensures that the theoretical properties that were emerging were based on the data itself.

2.5.3 The constant comparison method

Analysis of data and generation of GT is based on the constant comparison method. The constant comparison method is 'an iterative interplay' between data collection, analysis and conceptualisation. The constant comparison method is used to generate and plausibly suggest (but not provisionally test) the relationships between incidents, categories and concepts.[17] The first stage of comparison involved comparing incidents that had been coded into a single category (Glaser and Strauss, 1967, p. 106). This comparison helped to identify underlying similarities and differences of incidents within each category. For example, in analysing the data for the grounded theory on corruption I had coded two sentences from different actors as 'dependency'. It was in comparing these incidents that I decided they were actually not reflecting the same category and instead re-coded one incident as 'strategy for control' and was able to better define what I meant by 'dependency'. These similarities and differences helped me to begin to refine the categories. As I continued to collect and analyse data, I continuously checked each incident within each category, questioning how new pieces of data contributed to developing the theoretical properties of each category. The focus was on integrating categories and their properties. According to Glaser, the purpose of this comparison is 'theoretical elaboration, saturation and verification of concepts, densification of concepts by developing their properties and generation of further concepts' (Glaser and Holton, 2004). Comparing concepts—or the theoretical properties to the incidents—helped to identify what the characteristics of different incidents were and how these fit within and therefore define the different concepts. Building the concepts and going back to compare them with the data was also important to help me to identify some of the biases associated with talking about corruption and other sensitive issues. As these properties emerged and memos were recorded, more data was collected to help define these theoretical properties. Through the constant comparison of incidents and concepts, the concepts also became more integrated.

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[17] Incident refers to the instance in the data that is labeled or classified during the coding process. Incidents may be responses from individuals or observations and collectively they provide those characteristics that define the concept.

The third stage involved comparing concepts to other concepts. To Glaser and Strauss, the purpose of this comparison was to 'deliminate' theory because as it happens the analyst is integrating concepts into a hypothesis and reducing the categories and properties that are used to make the theory (Glaser and Strauss, 1967, p. 110) . The focus for me initially was to identify if and how the different concepts overlapped. When concepts overlapped, it was mainly a matter of being more specific about defining theoretical properties. For example, initially I had two concepts both related to the legitimacy, one about the legitimacy of legality and the other related to interests and creating legitimacy of different interests. However, it was through the process of constant comparison that I was able to identify the characteristics of the category of building legitimacy and how they differed from what became 'semblance for legality'.

The fourth and final stage of comparison is actually writing the theory, the challenges of which I discuss in more detail in the final chapter of this thesis. This fourth stage was more discrete from the other processes of data collection and analysis as I had already returned to Australia and was not collecting or coding any new data. However, it was particularly during this last stage, that I began again to read the existing literature, and to compare concepts from my theory to ideas in the literature.

2.5.4 Theoretical sampling

In GT methodology, constant coding and writing memos guides further data collection—on theoretical grounds. It is not selective sampling, in that it is not predetermined. Theoretical sampling is the deductive part of GT methodology where ideas from previous coding and memos point to areas where new data might provide new insights. That is, there is some criticism of the inductivism of GT methodology, in that there is little space for including existing theory, or for any type of verification. In several ways, I understood this process of theoretical sampling to be the deductive, verification aspect of this research. However, unlike sampling in traditional theory testing research, the goal of this sampling approach is not to find a representative random sample. The goal of collecting more data is to build nuance and depth into the emerging concepts, as such sampling is

guided not by the representativeness of any particular group, but by theoretical purpose and potential relevance to the emerging theory.

Sampling on theoretical grounds is also different to research that aims to verify existing theories, due to the ability to compare apparently non-comparable groups. In theoretical sampling, the apparent non-comparability of two groups is largely irrelevant, if the variable to be considered has a value in each group (Glaser, 1978, p. 42). It is the concepts within a group that are of comparative value—not the group itself. This means that the greater the diversity between groups, the better it is for comparison. Glaser describes this as the need to 'stretch' conceptual categories by seeking groups, which may provide significant variation.

Within Indonesia, as well as national and provincial level interviews, I initially selected two districts within one province to collect data. I selected these districts primarily because of the difference in natural resources. One district still retained significant forest cover that was at risk to mining and timber harvesting; the other had been selectively logged for many decades and was in process of transformation towards alternative land cover, primarily oil palm plantations. Given the substantive topic for this theory, governance and corruption in the forest sector, I selected these two districts as a way to introduce diversity around the issue of the environment. I added a third district later that had a more established agricultural sector, again aiming to stretch concepts and see how they work in areas where the governance and environmental conditions were different. Within Indonesia interviewing people at the national and provincial political levels also provided different groups, showing how theoretical properties emerged across different political-geographic scales.

Again, conducting research in PNG also provided an opportunity to extend the emerging theory. I had always planned to collect data in PNG, as a way to conduct a cross-national comparative case-study. However, the vast difference in environmental, social, ecological, political and historical factors made many aspects of a comparative study difficult. In generating GT, however, being able to go to PNG and collect data in this completely different context was valuable for stretching concepts. Partly this was due to the

differences in the two countries. I also found that, having been based in Indonesia for an extended period of time, I had become a little desensitised to several aspects of corruption and forestry. By placing the concepts in completely different context, some of these assumptions became more visible. Rather than disproving the emerging theory though, these sorts of contrasts just forced me to be more explicit in how I had defined the concepts and their properties.

2.5.5 Challenges from sensitive research

I have pointed to several challenges to conducting a GT on a sensitive topic, however, one of the main impacts of the sensitivity of the topic was that it impacted on my ability to reach theoretical saturation. The whole process of constant comparison, data collection, sampling and so on is meant to eventually lead to what Glaser and Strauss refer to as theoretical saturation. Saturation refers to the point where 'no additional data are being found whereby the sociologist can develop properties of the category' (Glaser and Strauss, 1967, p. 61). Whilst the idea of 'saturation' is not unique to GT methodology, it is still a difficult concept to assess. Glaser and Strauss provide few keys or criteria, except to say that '[a]s he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated' (Glaser and Strauss, 1967, p. 61). I found this to be a difficult concept to apply and remained unsure about what constituted saturation for this research.

Part of the challenge is that, for example, it was not always possible to get key people or representatives of key institutions to meet with me. As some concepts emerged, it was very difficult to find information or people who were willing or able to elaborate on these topics. This is partly a consequence of closed populations. These are groups of people to whom, for many reasons, a researcher may find difficulties in gaining access. One of the most relevant closed populations for this research was the police. Police, including forestry police, are obviously a key group involved in monitoring and enforcing regulation and governing resources. Interviewing police could have generated new characteristics, particularly for concepts relating to how regulations are monitored. Despite many attempts to interview them, however, I was unable to find anyone who would speak to

me. There is always the chance that key data was missed because of the sensitivity of this topic. This does not necessarily mean that the concepts, which may have benefited from data from police interviews, remained unsaturated. Secondary sources, newspaper articles, and presentations at workshops by informed people supplemented the interview data and helped to provide depth to the findings from the interview data.

The use of secondary data to support the potentially limited information of interviews is important and helped me ensure that the type of information I was receiving broadly matched information published by other researchers or journalists, as a way of ensuring that I had depth of information. A second way that I used to evaluate the depth of different concepts was to, in part, trial different concepts with informed participants. As I progressed with the analysis, I re-interviewed three key participants who were open about corruption, and was able to test several of these concepts with them. Whilst I cannot be entirely certain that all these concepts are theoretically saturated, this process of evaluation has given me confidence that the theoretical aspects are sufficiently developed for integration in these theories.

2.6 The results and evaluation of grounded theory

The description I provided in this chapter treats different components of GT methodology as fairly discrete. In reality, the process of generating GT was more cyclical than described here. This makes keeping control of the data and progress of the theory generation difficult. Indeed, this is one of the criticisms of GT, particularly for novice researchers, that in trying to maintain theoretical sensitivity, the novice researcher tries too hard to stay away from theoretical concepts, resulting in many substantive codes that fail to reach conceptual status. Indeed, this trend has been noted by other researchers (Kelle, 2005). To Kelle, this process reflects the challenge of GT methodology and the risk of 'forcing data', however, it does not necessarily detract from the validity of the ultimate theory, provided that eventually the researcher accepts and adopts some aspects of background theoretical knowledge.

A second challenge, which is recognised by Glaser and Strauss as a problem with the way GT is conducted, is the lack of teachers specifically trained in and practicing GT

methodology (Glaser and Strauss, 1967, p. 33). Without a trained GT methodologist on hand, I instead had to rely on the texts quoted throughout this chapter. These texts provided the key 'dos and don'ts' of GT, but they cannot be prescriptive about specific topic-related methodological challenges. The consequence for my research was that I perhaps collected data beyond what was necessary for some concepts, and perhaps was not able to integrate other parts of the theory as much as is desirable for a GT.

In saying that, however, all research methodologies have some challenges, such as in collecting data, or knowing when to stop, and these can impact on the final results of the research. This raises the important issue of how to evaluate GT and how any challenges such as these are overcome and dealt with, to ensure integrity in the research process and the product of the research. This is relevant because I have argued in parts of this chapter that GT methodology is suitable for researching sensitive topics—because the logic of theory generation means that many of the challenges associated with doing sensitive research are less likely to affect the final product. This would not be the case if I was attempting to empirically verify aspects of a theory on corruption. In order to understand the impact of the challenges of doing sensitive research, there is a need to be clearer about how I sought to evaluate the quality of a GT.

There are two aspects to evaluating a GT. The first is based on the methodology used. As I stated above, one of the main challenges and criticisms of GT methodology has been methodological blurring, where any type of inductive qualitative data analysis has been labelled as GT (Glaser and Holton, 2004). The problem with this is that it erodes the conceptual power of GT as other forms of qualitative data analysis may impose external concepts, problems and frameworks onto data, rather than letting concepts emerge from the data (Glaser and Holton, 2004). Blending methodology could reduce the value of the GT. In order to avoid this methodological blurring and maintain methodological integrity, the methods that I used, and have described in this chapter, adhere as much as possible exclusively to the classical GT by Glaser and Strauss (1967) and Glaser (1978). Whilst these texts are now quite old, they remain authoritative and have since been referred to as

being more traditional GT, rather than the evolved GT methodology of Strauss's later work and of others.[18] The extensive description I have provided in this chapter is also an effort to expose any potential mistakes that may impact on the interpretation of the final theory. This does not mean that I did not also utilise other approaches for other parts of my thesis, rather that the information presented in the two GT chapters are the results of strict (as possible) application of the traditional GT methodology.

The second aspect to evaluating a GT is evaluating the quality of the theory itself. To Glaser and Strauss, the criteria used to evaluate a theory are the things they prize most in sociological theory and why they came up with GT methodology in the first place. That is, that it should fit and work. Firstly, as I described above, one of my strategies to overcome the problem of knowing when saturation had been reached was to present aspects of these grounded theories to key participants from my research. Through this process I was able to get some feedback about how these concepts were (and were not) applicable to these people. This was not a formal review process; rather, it was the result of informal meetings and discussions about my research with informed people. Secondly, and I reflect on this further in the GT chapters themselves, some aspects of the grounded theories presented here do provide novel insights to better explain how governance and corruption work in practice. This helps to satisfy the criteria that grounded theories fit and work in the world that they seek to explain.

2.7 Case-study methodology

The majority of this chapter has focused on the GT methodology and issues to do with data collection and analysis for the grounded theories presented in Chapters 5 and 6. However, as I stated in the Introduction, the main research question of my thesis is 'does

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[18] The variations between traditional, or Glaserian, GT and the approach to GT promoted by Strauss and Corbin are arguably subtle; however, I have adhered to the traditional GT in this thesis for two reasons. Firstly, I focus on the traditional GT in order to avoid methodological blurring. Secondly, several of the features of Strauss and Corbin's GT approach contradict the original underlying principle of GT particularly in relation to the deductive processes described by Strauss and Corbin, which arguably could affect the emergence of concepts from the data. Some variations to the traditional GT approach come in from the constructivist perspective.

corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? And if so, how?' In Chapter 7, I seek to answer this question—however, none of the methods I have described above are used in that chapter. Rather, I treated the results presented in that chapter as more closely resembling the results of a case-study analysis, with Indonesia and Papua New Guinea as the case-study countries.

Case-study is a well-established research strategy where the focus is on a case in 'its own right, and taking its context into account' (Robson, 2002). There are several different aims for doing case-study research. To some, the aim of case-study is to be able to 'generalise across larger set of units' (Gerring, 2004, p. 341). However, the ability to generalise findings is not a necessary aim of all case-study research. By comparison, a key figure in the revival of case-study as serious research approach, Yin, defines case-study as strategy for doing research when three conditions are met. Firstly, case-study is appropriate when the researcher has little control over events. Secondly, the research is attempting to understand a contemporary phenomenon in a real life context and lastly, when the research seeks to determine how and why a phenomenon is occurring (Yin, 2009). That is, the case-study approach is a key approach when seeking to identify causal mechanisms, in detail, in a real life context. These three factors and particularly the second, support the use of the case-study approach for this part of my research.

There are limitations to using this approach. Firstly, there is a perceived trade-off between achieving high internal validity and generalisations that apply to broader populations (Alexander and Bennett, 2005). According to Flyvbjerg (2006), it is possible to generalise from a single case, depending on how the case was selected in relation to this research, but the lack of generalisability was an unnecessary concern because the aim of the research is to specifically understand the cases in question. As I described in the first section of this chapter, Indonesia and Papua New Guinea were selected because of the current concern over high rates of deforestation and the potential of corruption and poor governance to impede efforts to address REDD+. That is, these cases were selected based on an inherent interest in them (Stake, 1995). In this research, understanding the specific conditions in these two countries will be the primary focus.

Following the grounded theory methodology, the approach then shifted to understanding the potential links between corruption and poor governance and deforestation and forest degradation. This analysis focused firstly on understanding the process of deforestation and forest degradation in these two countries (some of which I introduce in the next two chapters of this thesis). I then divided the process of forest management into several key stages—being land use planning, awarding licenses, monitoring and enforcing activities and the distribution of benefits. At each stage, I drew on the findings from the grounded theories and the literature on drivers of deforestation to describe the conditions under which different types of corruption and poor governance could contribute to deforestation and forest degradation in the case-study countries.

2.8 Conclusion

This chapter has sought to firstly provide detailed description of the methods used to collect and analyse data for this thesis. This includes detailing the methodology of GT developed by Glaser and Strauss. I have sought to detail as much as possible the actual practice of collecting, coding and analysing data as a means to ensure that the results presented in subsequent chapters can be evaluated appropriately. I have also focused on the implications of the sensitive topic for the practice of this research. I described why these topics are so sensitive in these two countries and the practical implications for this—including gaining access to participants and the potential ethical implications of 'rephrasing' research proposals. I also described the difficulty of getting people to discuss corruption and some of the interview techniques I used to do this. Importantly, these factors influence the type of information collected and how the analysis proceeded, so I sought also to identify the potential implications of this for the analysis and results of this thesis. I reflect more on this in the final chapter of this thesis, where I discuss some of the challenges to writing and publishing material about sensitive topics.

In this chapter, I also detailed the approach adopted to analyse the key research questions about the potential impact of corruption and poor governance on the forests in the two case-study countries. I introduced aspects of the study countries and provided some justification for why these countries were selected. In the next two chapters I provide a

more detailed description of the history and the current issues to do with forest management in Indonesia and PNG. The detail in these chapters further justifies their selection and provides important background information from which to understand the subsequent grounded theories and case-study analysis.

Chapter 3

The Indonesian case

3.1 Introduction

The forests of the Indonesian archipelago are internationally renowned not only for their sheer size and high endemic biodiversity but also for the significant rate of deforestation and forest degradation. The Indonesian forest sector has also had well-documented history of corruption and poor governance (Barr et al., 2010a; Dauvergne, 1994; Smith et al., 2003a). This chapter provides a background to the issues of corruption, poor governance and deforestation in Indonesia. Following a description of forest resources and the pattern of deforestation, I document the history of forest management. I begin with the arrival and occupation of Indonesian territory by the Dutch East-India Company (*Vereenigde Oost- Indische Compagnie*, hereafter VOC) in the early 17th century and describe the evolution of forest policy to the current era. In doing so, I describe the evolution of several key regulations and provide an analysis of the ongoing drivers of deforestation and forest degradation. In the final section of this chapter I detail several key remaining governance challenges, firstly focusing on the tension between the centralised forestry ministry and the district governments and secondly, the challenges posed by the expanding oil palm industry.

3.2 Physical environment

3.2.1 Environment and people

The Republic of Indonesia covers a total territory of 1 904 569 km^2 which is spread over 17 508 islands(Government of the Republic of Indonesia, 2010). Situated between the Indian and Pacific Oceans, the Indonesian archipelago includes five main islands, three of which are shared with other countries, two main archipelagos and over 6000 uninhabited islands, which combine to make it one of the most diverse natural environments in the

world. Beyond the diverse natural environment, the over 246 billion Indonesians represent diverse religious, cultural and ethnic groups (World Bank, 2012). With about 80% of Indonesians living on Java, the Javanese are the largest ethnic group in terms of number and political power, but every island has its own complex set of ethnic groups, many of which also have independent languages and cultural practices. Politically, there are four key levels of government in Indonesia, which in descending scale include national (*pusat*), province (*provinsi*), district (*kabupaten/kota*) and local (*kacamaten*) government. Whilst Indonesia's GDP has been relatively well-performing and contributed to poverty reduction (Asra, 2000), there has historically been high economic disparity across the archipelago (Booth, 2000; Booth, 2003), with the outer islands in the east experiencing lower levels of socio-economic development.

Central Kalimantan, which was the focus of my research, is one of five Indonesian provinces on the island of Borneo.[19] The island of Borneo covers 743 330 km^2 and is shared between Indonesian Kalimantan, Malaysia and Brunei. Across the island are diverse natural environments including some of the world's most important peat-swamp lands[20] and forests, lowland dipterocarp forests, extensive mangrove swamps and high mountain ranges, with the highest mountain, Mount Kinabalu in Malaysian Sarawak, reaching over 4000 m.

As the second largest province in Indonesia, Central Kalimantan covers over 15 million ha of Borneo divided into 15 districts. The capital of the province is Palangka Raya, which is home to approximately 148 000 of the 2.21 million people in Central Kalimantan (Badan Pusat Statistik, 2010). The main ethnic group is the Dayaks, but this is a broad category and includes a great deal of ethnic diversity. Central Kalimantan has also been the destination for many Indonesian immigrants, who were relocated from the more densely populated regions of Java and Bali and provided with land in the southern regions of Kalimantan, under the national government's Transmigration Project. Since the original

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[19] The other provinces are East Kalimantan, West Kalimantan, South Kalimantan and the newly annexed North Kalimantan.

[20] The peat-lands of Kalimantan are renowned not only for the expanse and depth, but are very important as carbon sinks (Page et al., 2002).

transmigration project, there have been several waves of transmigrants arriving in Central Kalimantan[21] and these transmigrant communities now represent some of the poorest communities in Central Kalimantan.

In terms of natural environment, many of the key environmental features of Borneo are evident in different regions of Central Kalimantan. The northern areas of the province are mountainous and dominated by low-mountain forest ranges. This area also forms key watersheds for the many river systems of Central Kalimantan including the Kapuas and Barito rivers. The communities in these northern areas tend to be quite isolated, as the infrastructure in these remote areas is limited. The main livelihood strategies of these communities are subsistence shifting agricultural systems (*ladang)*, fishing, rubber production and mining (including artisanal and, more recently, paid employment with large mines). Peat-land forests and river systems dominate the landscape in the southern districts. Once home to vast native forests and many iconic native species, including the orangutan and proboscis monkey, these areas are now dominated by oil palm plantations (Galudra et al., 2010). As well as some shifting agriculture, the livelihoods of communities in these regions include rubber and rattan production,[22] and smallholder oil palm plantations and employment with commercial oil palm plantations.

3.2.2 Forest resources and the problem of deforestation

Across all of Indonesia, it is estimated that currently over 94 million ha is forested (FAO, 2010). These diverse forest types include mangroves, high alpine, peat-land and dense lowland rainforests. Indonesia's forests are also renowned global biodiversity hotspots (Conservation International, 2013), providing habitat for many iconic and endemic species including the Orang-utan (*Pongo sp.)*, Javan Rhino (*Rhinoceros sondaicus*), Sumatran Tiger (*Panthera tigris sumatrae)* and many more. As well as the renowned biodiversity, Indonesia's forests have attracted high-level international attention due to the high rates

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[21] Communities were moved to Central Kalimantan to help provide labor for the Ex-mega rice project, and there has been a more recent wave of migrants from Java and other areas in order to support the expanding oil palm industry.

[22] Rattan is the product of palms used traditionally for furniture, construction and ropes (Weinstock, 1983)

of deforestation and forest degradation. Indeed over the last two decades, Indonesia has consistently been rated as having one of the highest rates of global deforestation.

In the 1900s, Indonesia's forests reportedly covered up to 84% of the territory (Holmes, 2000 cited in Broich et al., 2011). However, deforestation and forest degradation has resulted in the loss of the majority of forests in some regions, particularly the inner islands of Java and Bali (Peluso, 1991). The rate of forest loss on the outer islands of Sumatra, Kalimantan and Papua is also high, with an estimated 2 million ha lost annually since 1997 (from MoF cited in Scotland et al., 2000). Of the provinces of Kalimantan, Central Kalimantan is thought to have the highest rate of deforestation and over the period of 1997–2007 an average of 12 000 ha was cleared annually (Broich et al., 2011). There is no available figure on the amount of forest that has been degraded.

The high rates of forest loss have attracted international and domestic attention in Indonesia for several reasons. Firstly, given the fact that an estimate 70 million Indonesians depend on forests directly and indirectly (Scotland et al., 2000), high rates of deforestation and forest degradation potentially jeopardise the livelihoods of many Indonesians. Forest loss also poses wider problems for biodiversity as the ICUN has classified 67 endemic birds, 184 mammals, 33 amphibians and 386 plant species as 'threatened' (Vié et al., 2009). Finally, deforestation and forest degradation in Indonesia is considered to be a key source of global carbon emissions. This is particularly from deforestation and the degradation of peat-lands, as peat-lands are important carbon sinks. As peat forests are degraded, peat soils can be dried out, increasing the risk of fire. Indeed, the clearing and degradation of peat forest and the resultant burning of peat-lands during the 1997 El Nino in Central Kalimantan alone resulted in 0.19-0.23 Gt of carbon released from peat combustion (Page et al., 2002). Despite these widely cited problems, high rates of deforestation and forest degradation continue. In order to understand why this is the case, the next section describes the history of forest use and the evolution of the political economy of forest use.

3.3 The management of forest resources

3.3.1 Colonial

Although Europeans had arrived in Indonesia in the 16th century, it was not until 1602 that the Dutch established the VOC as a formal colonial power. The VOC were heavily involved in the exploitation of the vast teak forests of Java and Bali.[23] The occupation of Java by the VOC marked the beginning of commercial exploitation and the first widespread degradation and conversion of Indonesia's forests. This degradation occurred because during this colonial period, rather than investing in forest management, the VOC adopted a strategy of expanding harvesting operations as supplies in each area were exhausted (Peluso, 1991). As operations expanded into regions beyond the official administrative land of the VOC, access to timber was negotiated through traditional leaders and the regional sovereignty (Peluso, 1991). In each of these regions, locally specific institutions had traditionally managed the forests communally under a system known as *Adat*.[24] Whilst many of these regions were technically ruled by *Susuhunan,* or Sultans, diverse social institutions limited and legitimated the control and rule by these traditional leaders (Peluso, 1991). The early attempts by the VOC to gain access to the timber were fraught with difficulties, as Javanese sovereigns withheld the rights to exploit timber. Formal letters accompanied by expensive silks, diamond rings, Spanish wines and elephants enabled the VOC to win the support of the Javanese Sultans and allowed the VOC to access the timber, land and labour across Java (Peluso, 1991). By 1705 the relationships between the VOC and regional sovereignty had developed into formalised contracts granting the VOC almost complete access to forests in certain regions of Java (Peluso, 1991, p. 66).

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[23]Teak timber is well suited to ship construction and access to Indonesia's forests provided the raw material for the Dutch naval empire, as well as providing construction material for the new urban centres across Java (Boomgaard, 1992; Peluso, 1991).

[24]*Adat* is a complicated term used to describe traditional legal systems. However, there is no one single adat system and these traditions vary greatly across Indonesia.

The deforestation and forest degradation that occurred during the VOC administration (mid-17th century to 1799), and the subsequent Dutch colonial administration (1800 onwards), was a result of harvests in accordance with formal VOC contracts and extensive illegal harvesting. Although records are scarce, Peluso, an expert on colonial forest administration in Indonesia, argues that over 95% of the harvest was illegal during this period (Peluso, 1991, p. 67). This additional, illegal, logging involved complicity by VOC officials in the field who were thought to not only take commissions on legally logged timber, but also sponsored private illegal woodcutting (Peluso, 1991, p. 67).

The perceived limitlessness of Java's teak forests, and the ability to expand into more remote areas meant the VOC had no incentive to reduce the impact of harvesting practices or to attempt to rehabilitate native forests. Even though investigations by the VOC into timber supply in 1796 recommended ending logging in some regions and cutting the harvest by up to 50% in other regions, these recommendation were not followed. By the late 18th century the majority of Java's teak forests had been exhausted and by 1925 it was estimated that in some districts, over 75% of original forest cover had already been lost (Boomgaard, 1992; Peluso, 1991, p. 67).[25]

The informal arrangements between the VOC and regional sovereignty led to the establishment of more formal state ownership of forest lands when the Dutch government officially took control from the VOC in 1800. When the governor-general Marshall Daendels was appointed, there was a transformation of forest management to a far more state-centered and bureaucratic system (Boomgaard, 1992). Under Daendels' governorship and a system called *Domein*, the Dutch state took ownership over all forests (Peluso, 1991).[26] *Domein* was accompanied by extensive expansion of the forest bureaucracy and widespread adoption of the principles of scientific management. For

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[25] This calculation is rough because it was based on measurement in the units of time taken to walk, so it is a little difficult to determine exact distances. But the figures stand: some 5000 ha were logged and converted to alternative uses between 1775–1925 (Peluso 1991, p. 67; Bloomgaard 1992, p. 12).

[26] The Agrarian Law 1870 included a Domain Declaration (*Domein verklaring*), which stated that all land not under clear ownership was considered State land. Communities' rights over land were not recognised, as these were based on customary law, which was not recognised as proof of ownership in Dutch law.

example, in 1948, German forest technicians employed to manage the forests of Java recommended establishing rotation harvests and replanting measures (Peluso, 1991, p. 69). Daendels also implemented policies to address illegal logging, establishing strict penalties for anyone engaged in 'high-level corruption, slackness or breaking oaths of office' (Peluso, 1991, p. 68). Maximum penalties included 10 years imprisonment and substantial fines; however, the lack of personnel to monitor forest activities meant that enforcement remained weak (Peluso, 1991).

As well as attempting to secure sustainable timber supplies, the focus on scientific principles of forest management enabled the Dutch (and subsequent governments) to justify state ownership of resources. This perpetuated a political system which subordinated local rights and ignored traditional management practices, as was common in many colonial practices of forest management (Larson and Ribot, 2007; Peluso, 1991). Despite a period of occupation by the British (1811–1815), the Japanese (1941–1945) and the passing of almost two centuries, several elements of Daednels' system remain central to forest management in Indonesia today. These include the consolidation of all forested lands under state ownership, to be managed for the benefits of the state, and the establishment of a powerful forest service bureaucracy (Peluso, 1991, p. 68).

3.3.2 Independence

Indonesia gained independence from the Japanese in 1945. This period of early independence was marked by conflicts between the military and the communist party (PKI), who supported then President Sukarno. As a result Sukarno's presidency was dominated by negotiations and consensus-building between the competing interest of the PKI and the military (Liddle, 1996). During his 20 years as president (1949–1967), the left-leaning Sukarno attempted to establish state enterprises to harvest timber, particularly on the outer islands. The impact of Sukarno's presidency on forest management is also marked by the passing of Law 5 (1960), the Basic Agrarian Law (*Undang-Undang Pkok Agraria,* BAL). The BAL reaffirmed state ownership of forest resources, although this took a slightly different form to the Dutch *Domein.* Instead of outright state ownership of the forest under the *Domein* system, under the BAL the state is defined as the managing

authority over Indonesian 'soil, water and airspace'. Despite this distinction, the change, in terms of who controlled forests, from colonial to post-colonial Indonesia was minimal. The state largely retained full control over the ability to regulate land use and to determine resource access.

Article three of the BAL did go some way to restoring the rights of customary owners. However, this was restricted to only those rights that do not conflict with other government regulations over forest use. The underlying theme of this regulation reflects the socialist tendencies of the then President and of the political support of the PKI. That is, Indonesian resources are for the benefit of all Indonesians, not just for those with traditional ownership and use rights. This provided justification for the exploitation of the outer islands and for the appropriation of all of the financial benefits of this exploitation by the state. The assassination of leading military figures, followed by the resignation of Sukarno in 1967, left the BAL largely unenforced (Tjondronegoro, 1991 cited in McCarthy, 2000a). However, several features of the BAL, particularly state ownership and Javanese-centric decision-making, continued into the post-Sukarno period.

3.3.3 Suharto era forest management

In 1967 Suharto was sworn in as Indonesia's second president. During the 32 years (1967–1998) of Suharto's rule, the process of government in Indonesian shifted from the more consensus-based system developed under Sukarno to a far more centralised and autocratic political system. Whilst the People's Consultative Assembly (MPR) was technically the nation's highest authority, during this period the MPR was largely powerless. Suharto had the power to appoint Ministers and governors, had full control over the military, and policy was determined at the executive level by Suharto and a select inner circle. Golkar, the major political party led by Suharto, was also directly linked to the military and controlled district, provincial and national level assemblies (Dauvergne, 1994). Suharto's almost complete control of the military is important in understanding his presidency. Suharto's political manoeuvring ensured the loyalty of the military, by providing key military figures with economic stakes in the political survival of Suharto (Barber and Talbott, 2003; Ross, 2001). The military's impact on the bureaucracy was also

strong, with around 60% of senior Jakarta officials having significant military ties in the late 1980s (Dauvergne, 1994).

The policy approach of Suharto, and his close advisors, was dominated by traditional Western notions of development, which are centred on economic growth. This highly centralised and development-focused system contributed to the economic growth that Indonesia experienced over much of Suharto's rule and added to the legitimacy of Suharto's regime (Liddle, 1996).[27] However, this economic growth arguably came at a high price. Politically, there was limited accountability. The two formal competing political parties were strictly controlled (Dauvergne, 1994; Liddle, 1996) and members of the civil society who attempted to challenge Suharto were immediately blacklisted (Moeliono et al., 2009, p. 14).[28] Official poverty levels declined dramatically during Suharto's rule; however, the distribution of income wealth varied considerably, with many of the benefits being distributed towards the upper and middle classes (Booth, 2000; Dauvergne, 1994). The benefits of the economic growth were also concentrated geographically. In the forest sector, this meant that despite significant wealth being drawn from the exploitation of forests in the newly 'opened' outer islands, the Java-centred elite appropriated these profits with limited distribution to regional areas (Dauvergne, 1994; Sunderlin and Resosudarmo, 1996). With benefits accruing to the Java-based elite, who were not accountable to districts, there was little incentive to reduce negative environmental impacts or manage the resources, a fact which is evident in the regulations governing forest use at the time.

Suharto and his New Order government passed two new laws to manage the state resources. These were the Basic Forestry Law (*Undang-Undang Kehutanan*, BFL) no. 5, and Foreign Investment Law (*Undang-Undang Modal Asing*, FIL) no. 1, both from 1967. These two regulations drew details from the only specific forestry regulation, created by the Dutch in 1929, and were designed to stimulate foreign investment and export earnings in

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[27] Over 25 years of Suharto's rule, growth in Indonesia averaged 6% or better each year (Liddle, 1996).

[28] In 1994, several NGOs who brought legal allegations against Suharto for misuse of the reforestation fund, were formally blacklisted. This meant that that the NGOs were not allowed to receive foreign funds (Moeliono et al., 2009).

Indonesia (Resosudarmo, 2002, p. 162). The BFL and the amended Forestry Act 41/1999 (*Undang Undang Kehutanan* UU 41/1999, hereafter Forestry Act) identified the area considered legal forest estate, which at the time was 76% of the entire area of Indonesia, to be managed by the Ministry of Forestry (hereafter, the Ministry). The formal forest estate was designated in the 1984 forestry land-use plan (*tata guna kesepakatan hutan*, TGHK), which remains the basis of the forest estate in the current era. Within this estate, forests are defined according to three functions: production forests *(hutan produksi,* HP), protection forests (*hutan proteksi)* and conservation forest *(Hutan konservasi).* Areas within the forest estate can also be zoned as convertible production forest (*Hutan produksi konversi, HPK).*[29] Importantly, the Forestry Act also provided a legal basis for the central government to grant permits and allocate timber concessions. In line with the development approach taken by Suharto, the FIL focused on encouraging foreign investment and provided very favourable conditions for firms including low taxes and long-term licenses (Dauvergne, 1997; Poffenberger, 1997).

According to the Forestry Act, access to timber was exclusively granted through a process run by the centralised Ministry. Large-scale commercial logging concessions (*Hak Pengusahaan Hutan*, HPH), which are still in operation today, are 20-year, selective logging concessions. In the early Suharto period, the HPH concessions were incredibly popular, and quickly covered one-third (65.4 million ha) of all forest land in Indonesia (Poffenberger, 1997) and by 1996, approximately 40 million m^3 of timber was being logged annually . Whilst the contribution of this logging industry to deforestation is not well-known (Sunderlin and Resosudarmo, 1996), this period of logging and the operation of the HPH licenses did contribute significantly to forest degradation. It was found in 1990 that up to 40% of standing stock was damaged in logged areas (World Bank, 1990 cited in Sunderlin and Resosudarmo, 1996).

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[29] Land-uses within the forest estate are determined by these zones. Logging and some mining can only occur in production forests. Protection forests include river buffer zones and forests on slopes and cannot legally be cleared. Conservation forests include national and provincial parks and wildlife reserves and cannot be converted; however, some non-timber forest products can be harvested within conservation forests.

The rapid exploitation of forests under HPH is partly due to the high-level political capture in the distribution of these licenses and the lack of political incentive to monitor and punish illegal logging. Technically, the Ministry had legal responsibilities over the nation's forest estate. However, Suharto and his close political associates were able to influence the distribution of logging licences. This was particularly facilitated by placing close allies (initially family of Mrs Suharto) in key positions within the Ministry (Barr, 1998, p. 4). The use of timber concessions to support patronage networks has been well documented in many countries, Indonesia being no exception (Dauvergne, 1994; Ross, 2001; Smith et al., 2003a; Soreide, 2007). In Indonesia, the majority of these lucrative timber concessions were given to important politico-business associates of Suharto (Poffenberger, 1997). In the 1970s, this meant that 65.4 million ha was under concessions held by a few hundred concessionaires (Repetto, 1988, p. 20). By 1993 it was estimated that over 30% of the concessions were controlled by five or six companies and the politically astute distribution of logging licences enabled Suharto to create personal financial ties to lucrative concession contracts (Poffenberger, 1997).

There were many features of the regulations that governed these HPH licenses that contributed to their value as patronage and also contributed to the negative environmental impacts caused by logging operations. The first feature was low rent capture by the government. Between 1979 and 1985, only 38% of the rent from forest exploitation was appropriated by the Government, which given the rate of exploitation and the value of logs, represented a windfall profit to firms of US$2.8 billion between the years 1979–1982 (Repetto, 1988, p. 17). Firstly, low rent capture increases the value of concessions to private firms, which in turn increases the value of the concession in terms of patronage for the political elite (Ascher, 1999; Dauvergne, 1994). The political dependency of Suharto and the New Order government on patronage supports this rationale. Secondly, it enables commercial operations to remain profitable, despite potentially considerable political kickbacks (Poffenberger, 1997, p. 456). Whilst low rent capture is designed to attract investment and develop industries, these conditions continue long after industries have been established. For example, income taxes were

rarely collected by government, even after companies had been established for over six years (Ross, 2001).[30]

The harvesting procedures of the HPH also contributed to the environmental impact of these logging operations. Legally, harvesting procedures followed the framework provided by Indonesia's selective cutting and replanting systems (*Tebang Pilih Tanam Indonesia*, TPTI) (Iskandar et al., 2006). The TPTI follows the system of forest management introduced by the German forest technicians during the colonial period. It allows for all commercial trees under 50–60 cm diameter at breast height[31] to be removed within a felling cycle of 35 years. Companies were also required to replant in logged areas. Where applied, these measures should reduce the negative environmental impact of logging activities and ensure a long-term supply of timber. However, even under the TPTI, between 28–40% of remaining trees were damaged during logging operations, with long-term implications for rehabilitation and sustainable timber supply (Iskandar et al., 2006). In many cases also, logging operations ignored the conditions of TPTI and engaged in behaviours like high-grading, over-harvesting and ignoring fallow periods.[32] All of the above behaviours have been documented in the operation of many of the HPH licenses (Iskandar et al., 2006; Poffenberger, 1997; Repetto, 1988).

Not only did these activities increase the negative impacts of logging operations, this type of illegal harvesting went unpunished. Collusion between companies and the military and police provided immunity from enforcement of forestry regulations (Dudley, 2002, p. 359; Poffenberger, 1997).[33] Whilst over-harvesting by concessionaires went unpunished, the police and military did restrict access to local communities. Given the fact that many forest areas were under the formal control of the state, many community areas, which

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[30] Establishing companies were exempt from paying income tax for the first six years of operation.

[31] Diameter at breast height is a standard unit to measure tree size. 50-60cm depends on production forest type (Guritno and Mauro 1996:79).

[32] High-grading refers to the selective removal of only the most valuable species. This is thought to affect the sustainability of the timber production of the forests, as it promotes reseeding by smaller or lesser quality trees.

[33] The collusion also created a strong financial dependency by the police and military on the income generated by legal and illegal forestry operations (Dudley, 2002).

had not been legally recognised, were subsumed under HPH concessions, a fact which arguably contributed to a degree of resentment by communities towards Jakarta and the Ministry (McCarthy, 2006).

The legal restrictions forced many local community members to become complicit in illegal operations, either by helping concessionaires log outside concession boundaries, or illegal harvesting of timber from protected, conservation and reserve forests (Casson and Obidzinski, 2007). During the late 1980s, harvesting from within these protected forests was estimated to be about 2 million m^3 of harvested timber (Swartz, 1990). As the military-bureaucracies were increasingly able to benefit at the local level from illegal logging, their control and power expanded (Casson and Obidzinski, 2007).

Plywood, pulp and paper and industrial timber plantations

Another factor contributing to the unsustainable exploitation of native forests in Indonesia was the 1980 restriction on raw log exports, which was expanded to full export bans in 1985. The regulation for this ban was established by the Ministries of Forestry, Industry, Home Affairs and Foreign Trade, and had several objectives, including to improve the export value of timber and to increase labour opportunities (Guritno and Murao, 1999). The ban was accompanied by generous subsidies, including significant income tax holidays and export tax exemptions, in order to encourage investment in downstream processing (Repetto, 1988, p. 25). As a result, there was a rapid expansion of the plywood and later the pulp and paper industries, with the number of plywood processing mills increasing from 21 to 114 units before 1988 (Guritno and Murao, 1999).

In order to make Indonesian plywood more competitive in the international markets, Suharto and the New Order began working with the wood panel association of Indonesia, Apkindo. Under the lead of Bob Hasan, a prominent figure in Suharto's inner circle, Apkindo were able to ensure that the Indonesian plywood consistently undercut competitors from other plywood-exporting countries (Barr, 1998, p. 16). By 1987, Indonesia had become the dominant international supplier of plywood, accounting for 67% of the international market (Barr, 1998, p. 18), which grew to 85% by 1989 (Guritno and Murao, 1999). Pulp and paper production also increased during Suharto's

government. By 1999, pulp and paper products accounted for over 50% of Indonesia's forest-related export earnings, a total of $US 2.65 billion (Barr, 2000). Furthermore, even though these bans were ostensibly designed to improve the conditions for Indonesia, the financial support provided to the processing mills and the loss of export revenue from the ban on timber exports meant that the state effectively lost money through these reforms (Repetto, 1988, p. 25). Also there were widespread abuses of funds earmarked for developing this industry (see section on the reforestation fund below).

Beyond the negative economic impacts of the regulations that banned raw log exports, the rise of the pulp and paper industry also had environmental impacts. As the number of processing mills expanded, extreme pressure was put on natural forests to meet the raw timber demands (Poffenberger, 1997).[34] Many of these mills were meant to be supplied by timber from native forests that were under HPH concessions; however, demand soon outweighed the legal supply of timber from these concessions. By 1998, the installed capacity of the processing industries (plywood, pulp and paper) was just over 116 million m^3 of raw material and by comparison, the total legal timber supply from HPH in 1998 was 43 million m^3 (Palmer, 2001). This shortfall was largely met with illegally harvested timber from native forests and forests zoned as permanent forests (Barr, 2000).

The shortfall in the supply of raw timber from native forests was to be supplied by timber from plantations, which were regulated under the Timber Estate and Exploitation Right (*Hak Pengusahaan Hutan Tanaman Industri,* HTI). Whilst expectations were high, by 1995, only 520 000 ha of timber plantations had been established (Sunderlin and Resosudarmo, 1996). Beyond the sheer lack of area developed under HTI, there were several features of the HTI license which affected the ability of the HTI to reduce pressure on native forests. Firstly, the easy availability of cheap raw material from native forests has made many companies hesitant to commit to developing timber plantations (Barr, 2000). Secondly, the HTI licenses gave the owner the right to cut and sell the timber within the boundaries of their plantations. Technically, HTI were to be located in HPK, that is, in degraded forested land. However, the considerable financial benefits of harvesting native timber

[34] In five years, over 110 processing mills were established (Poffenberger, 1997, p. 459).

encouraged HTI owners to locate their plantation sites on areas with significant forest cover (Barr et al., 2010a; Poffenberger, 1997). In some cases this even meant that no plantations were developed, as the main interests of the HTI holder was to gain access to cheap timber by clearing the native forests (Barr et al., 2010a). Even where plantations have been established, the conditions of the license stated that only 60% of areas must be established under plantation. This allowed 40% of concession area to be cleared without subsequent use (Poffenberger, 1997). Lastly, many HTI plantations were established with favourable government subsidies. Interest-free loans, funded through the reforestation fund and income tax holidays were provided to HTI licensees, many of who were close associates of Suharto. These subsidies encouraged inefficient and risky management strategies, such as developing large processing facilities without securing legal or sustainable timber supply (Barr, 2000). Yet despite these problems and the fact that so little timber was coming from plantations,[35] the government continued to establish new processing mills (Resosudarmo, 2002). The overcapacity of the processing industry remains an ongoing concern in some parts of Indonesia, as policy makers are faced with strong pressures to maintain the supply of raw materials to the processing facilities (Barr, 2002, p. 195).

Reforestation fund

Implicit recognition of forest depletion led to the development of a performance-based forest rehabilitation fund, which was restructured into the reforestation fund (*Dana reboisasi)* in 1989 (Barr et al., 2010a). The reforestation fund was a non-refundable volume-based levy kept in an off-budget account, administered solely by the Ministry. Beginning at US$7.00 per cubic meter of timber over the period between 1989 and 1993, the reforestation fund grew to an average of US$16.00/$m^3$.[36] The collective contributions to the fund totalled US$5.8 billion over the two decades of operation, making it the most

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[35] Between 1988 and 1999 less than 8 million m^3 of the estimated 100 million m^3 of timber required by processing mills came from timber plantations (Barr, 2000).

[36] This was averaged, because different species have different rates.

significant fund for the forestry sector and contributing between 65–70% of revenue from forest activities between 1993 and 1998 (Barr et al., 2010a).[37]

By placing control of this fund within the Ministry, the political elite of the time were able to manipulate the use of the money, without the oversight of the Ministry of Finance. This facilitated a high degree of abuse and corruption in the distribution of the reforestation funds. That is, rather than providing funds to rehabilitate native forests, this fund was directed at developing processing facilities and timber plantations. Over US$1 billion was provided, in low-interest loans, to firms establishing HTI, many of which have since gone bankrupt or failed to establish sustainable timber supplies (Barr et al., 2010a). As described above, large sums, US$ 109 million, were also paid to develop processing facilities and timber mills (Barr et al., 2010a). Substantial amounts of the fund also went to support politically motivated operations, including $10 million to a helicopter company owned by Suharto's youngest son, Tommy (Barr et al., 2010b, p. 19). Although there have been some changes to the management of the reforestation fund[38]—it is now managed by the Ministry of Finance and more of the fund is distributed to the area from which it was collected—arguably much of the damage has already occurred as many of the areas previously degraded during the logging boom have not been rehabilitated, which has increased the demand for alternative land uses (Barr et al. 2010).

3.4 Reformasi and the rise of the district

In 1998, the combination of the Asian financial crisis (1997/98) and widespread student protests led to the resignation of President Suharto. The political hole caused by the resignation of Suharto, as well as the economic impact of the Asian financial crisis, led to a rapid transformation of the entire governance structure of Indonesia as the spirit of

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[37] At the time, the payments to the reforestation fund were large compared to the two other revenue sources: royalty and the concession payment fees.

[38] Under Law 22, 60% of the reforestation fund is controlled by the Central government and 40% is distributed to the region where it was collected. However, that 40% is usually distributed to the province and then distributed equally to all districts within the province (Moeliono et al., 2009, p. 273).

reformasi[39] spread across the archipelago. During this period of reformation, a process of formal decentralisation of many government responsibilities to the district (*kabupaten/kota*) level began.[40] Formally, decentralisation in Indonesia was achieved through the passing of Law 22 on regional governance (*Undang-undang Permerintahan Daerah, UU 22/1999*) and Law 25 on Fiscal Balance between the Central Government and the Regions (*Undang-Undang Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah*, UU 25/1999). UU 22/1999 devolved authority to district and municipalities for many administrative functions[41] so that, in 2001 when the laws were formally implemented, district governments assumed control over areas including health, education, environment, land and manpower (Article 11). UU 25/1999 established the provisions for distributing finances between various levels of government.

There are several implications of the decentralisation in Indonesia that have affected forest governance. Firstly, more generally, decentralisation reforms established some conditions to strengthen political participation, including establishing district-level elections and a higher degree of participation for different political parties than had occurred during Suharto's rule. However, the structure of the electoral system and the provision of finances to district governments outlined in Laws 22 and 25 had the effect of reducing the direct accountability of local politicians to the electorate. This was because citizens voted for political parties represented in the local administrative assembly (*Dewan Perwakilan Rakyat Daerah,* DPRD),and the district head (*Bupati*) was determined by elections held by the members of that local administrative assembly. This meant that the *Bupati* are directly accountable to the local administrative assembly, rather than to citizens. It also meant that the election process for the *Bupati* became dependent on the system of distribution of favors, resulting in the development of strong systems of

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[39] *Reformasi* refers to the political changes that were brought about with the fall of Suharto—the term also implies a spirit of local empowerment and a greater distribution of benefits to regional areas (McCarthy, 2000a).

[40] *Kabupaten* and *kota* represent the same level of government, however the former refers to district-level government in regional areas and the later refers to district-level government in urban areas.

[41] Exceptions include security, defense, foreign policy, monetary and fiscal matters, justice and religious affairs (Article 7, 1).

patronage at the local level in many districts (McCarthy, 2002a, b). This suggests that rather than relieving the political system of patronage, decentralisation in Indonesia resulted in a decentralisation of corruption and contributed to the strengthening of local-level patronage networks.[42]

Implementation of these decentralisation regulations at the district level was also difficult because they were not being implemented on a clear political landscape. That is, in local areas, the era of *reformasi* represented an opportunity for self-determination and particularly an opportunity to reclaim some of the benefits of resource exploitation (McCarthy, 2004). This meant that prior to formal decentralisation, many district governments had already begun issuing regulations and asserting their authority in different sectors (McCarthy, 2004; Moeliono et al., 2009).

Despite the enthusiasm of the district governments to embrace their new-found authority, there were some disputes over the actual degree of decentralisation of forest management (Ribot et al., 2006). Despite the fact that neither Law 22 nor 25 refer to forest operations directly, the message of regional autonomy led the district heads to assume that the principles applied to forestry also. However, whilst districts sought to extend their control of forest lands, they came into conflict with the powers of the Ministry, who in turn claimed that districts did not have the capacity to manage the nation's forest resources (Dermawan et al., 2006; Ribot et al., 2006). As a result, the Ministry sought to re-establish its authority over forest resources, as evident in the introduction of the New Forestry Law (UU 41/1999) in the early era of *reformasi*. Law 41/1999 does not mention the transfer of authority to districts. Instead, it outlined the broader authorities and function of the Ministry, which included classifying forest areas and changing the status and function of forests, setting criteria and standards for royalties and licensing activities in forest areas (Resosudarmo, 2004). Therefore, even though decentralisation of some sectors has occurred, in relation to forest management, regional and provincial governments had little formal control over the management of areas within the forest estate, which arguably contributed to ongoing tensions between the newly

[42] Since *reformasi*, electoral reforms mean that district heads are directly elected.

empowered district heads and the Ministry. One area where this conflict was particularly apparent was in conflict over the authority to issue small-scale timber harvesting permits (IPPK).

In the early post-Suharto period, the Ministry established regulations to allocate small timber concessions (*Hak Pemungutan Hasil Hutan, HPHH)* and the controversial small-scale timber harvesting permits (*Izin Pemungutan dan Pemanfaatan Kayu, IPPK*), which were to be distributed by provincial and district governments respectively. The former, HPHH, were designed to enable communities to harvest non-timber forest products. The latter followed the Timber Utilization Permit (*Izin Pemanfaatan Kayu, IPK)* and allowed communities to clear 100 ha of forests to establish plantations (Palmer and Obidzinski, 2003).

Within weeks of the IPPK concession being available, district officers were flooded with applications. Across one district in East Kalimantan, in the first half of 2000 alone, the land under IPPK went from almost nothing to covering 11 000 ha (Casson and Obidzinski, 2007). Part of the explanation for the rapid release of IPPK licenses was the political and economic importance of these licenses for district governments. Economically, the 1997 Asian financial crisis, as well as decentralisation reforms, had significant impact on the financial capacity of many district governments. With the majority of funds distributed under Law 25 involving pre-determined expenses such as public service wages, the IPPK licenses offered an independent revenue stream. This was not only in terms of timber royalties and licensing fees but also in the variety of new taxes and fees which were established at the district level (Barr et al., 2006). Politically, there was also a desire to establish revenue streams independent of Jakarta (World Bank, 2003), which added to the incentive for district officials to distribute IPPK licenses. On an individual level the ability to attract investment and distribute patronage was seen as an important legitimating factor for district heads (McCarthy, 2000b, 2004) and allowed them to collect personal benefits which had been denied during Suharto's era (Barr et al., 2006, p. 27).

The IPPK licenses differed from HPH licenses in several ways, which contributed to the controversy surrounding these licenses. Firstly, no reforestation or selective logging

requirements are outlined in the legislation. Secondly, unlike the 20-year rotation system of the HPH licenses, IPPK licenses only granted access for 6–12 months. This short time creates no incentives to manage the forests for future harvests.[43] In terms of cutting operations there has also been poor harvesting practices documented in IPPK, including higher harvest rate and increased residual stand damage than occurred under HPH licenses (Iskandar et al., 2006). Also, legally, the IPPK licenses were to be granted only in community forests, and not to be granted for land under the HPH. However, many of these licenses were allocated within areas under HPH concessions licenses (Barr et al., 2006; Casson and Obidzinski, 2007). This contributed to over-harvest within these areas. Under decentralisation, there also were no incentives for districts to seek to conserve forested lands as they were financially dependent on royalties collected from extraction (Moeliono et al., 2009, p. 273).

There were also widespread allegations of corruption in the distribution of IPPK licenses (see Smith et al., 2003). These allegations include conflicts of interest between forestry officials, military and regional members of parliament, all reportedly having stakes in IPPK operations (Barr et al., 2006). Collusion between IPPK operators and provincial and district forest officers enabled IPPK operators to overstate available timber (Smith et al., 2003a). Smith and colleagues also found that concessionaires were under-harvesting within their concession boundaries; for example, where the authorised harvest was 49m^3/ha, the average actual harvest within the concession was only 20m^3/ha, which meant that concessionaires were logging beyond the prescribed 100 ha, in order to reach the maximum 49 m^3 harvest (2003a, p. 297).

Even though IPPK were also initially designed to enable community participation and benefits from logging operations, the operation of these concessions in many districts was quickly captured by the local elite and outside business interests (Casson and Obidzinski, 2007; McCarthy, 2000a). One study of Malinau district in East Kalimantan found that these concessions were often in the hands of local entrepreneurs, who had extensive political

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[43] This reflects the aim of these licenses to promote small-scale agriculture, rather than a long-term timber industry.

ties. Some even had histories of trading in illegally harvested timber during the Suharto era (Limberg, 2009). For villages in these areas, volume-based royalty payments meant that they had little incentive to report any irregularities in the IPPK operations (Smith et al., 2003).

The various problems associated with the IPPK licenses led to Ministerial decree no 084/200, which withdrew the authority of district heads to distribute IPPK licenses. However, this was disputed by many district governments, and IPPK continued to be awarded (Ribot et al., 2006), which gave some level of legal support for logging activities that were, according to the Ministry, illegal.

Indeed, illegal logging during the early post-Suharto period is widely reported to have been very widespread. This was due to factors such as the limited capacity to enforce rule of law because of the weakened state, but also ambiguities in regulation which enabled a variety of different activities to be legalised under competing regulations (McCarthy, 2002a). By 2001, illegal logging was thought to be one of the most critical threats to Indonesia's forest cover, accounting for 50–70% of total log production in some districts (ITTO, 2001). However, ambiguities in the regulation surrounding forest use mean that what is illegal at the national level may be legal according to district regulations. That is, conflicting regulation enabled different actors to defend a variety of activities on the bases of competing national and regional regulations (Ribot et al., 2006, p. 1873). In practice this has contributed to a situation where the Ministry remains the legal authority regarding forest use within the forest estate (which accounts for 76% of the territory of Indonesia), but district government have retained significant *de facto* control over resources within their territories. This means that the accuracy of any figures on the amount of illegal logging during this period are questionable and in some cases may significantly over-estimate the illegal harvest (Casson and Obidzinski, 2007; Tacconi et al., 2004). Nonetheless, illegal forest operations have remained a significant ongoing challenge for the sustainable management of Indonesia's forests.

3.5 Remaining challenges for forest management

3.5.1 Land-use planning and the division of power between central and district government

As described in section 3.4, in the early period following *reformasi*, there was considerable confusion over the exact distribution of powers between the central Ministry and the lower levels of government, particularly the district-level government. That is, following the spirit of *reformasi*, district governments claimed authority to distribute some licenses. However this authority was quickly revoked by the central Ministry, which sought to retain the authority to manage the nation's legal forest estate. Since this early period, there have arguably been some improvements as different actors' powers, such as power to distribute licenses, have become clearer. That is, the Ministry retains control over awarding licenses for activities within the forest estate, but applications to the Ministry must have recommendations from the district and province where the proposed activity will occur. The district and provincial governments then have authority to award licenses for activities outside the forest estate, which includes areas that have been annexed from the forest estate. Despite this clearer division of authority in the distribution of licenses, the tensions have arguably shifted to conflicts over the zoning of land between forest and non-forest estate. That is, the remaining tensions between the Ministry and other levels of governance are now largely focused around the distribution of land between the forest estate and non-forest estate and consequently there is ongoing tension over what licenses are required by different activities in different areas.

Firstly in relation to areas released from the forest estate, the formal process involves the application for a release permit (*izin pelepasan kawasan hutan*). This release permit is awarded by the Ministry, based on an evaluation of the area, and legally annexes land from the forest estate.[44] Any activity that involves clearing forestlands and replacing it with an alternative land-use must have this release permit from the Ministry, before any

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[44] For forest areas to be annexed from the forest estate they must meet several criteria, including less than $20m^3$/ha of commercial species with a DBH less than 30 cm.

clearing can occur. On paper this process is clear; however, in practice there are significant challenges due in part to conflicting ideas about where the forest estate lies. The conflicting ideas are due in part to the fact that many areas in the legal forest estate (as specified in the TGHK) were not originally forestlands or have since been subject to clearing, meaning there is a disconnect between the legal zoning of forestlands and the actual forest cover.

One case of this conflict between formal forestlands and actual land-use in Central Kalimantan is the case of the mega rice project. The mega rice project was a vision of the Suharto Government, which in 1996 sought to convert over 1 million ha of peat-land forest in Central Kalimantan to rice production. From 1997 the area was cleared of timber, canals were built, peat-lands were drained and some rice crops were planted. Far from becoming the food bowl of Indonesia, however, the mega-rice project failed to produce any rice and many areas of the former project were left unattended, were burnt in extensive wildfires or were converted to oil palm plantations (Galudra et al., 2010). In 2006, a court decision revoked the original government decree, arguing that the procedures for releasing the forestlands had not been followed. That is, the area had not been formally annexed from the forest estate with a legal release permit (Galudra et al., 2010). The lands of the mega-rice project were therefore reclaimed by the Ministry and any concession in the area became illegal. Since this court decision, there have been successive attempts by the provincial, district and central Ministry to resolve the disputes over the land-use plan and establish boundaries of the forest estate (Appendix 5), but many areas remain in dispute and tensions continue as different levels or departments of government adopt different land-use plans, which I discuss further in Chapters 5 and 7.

3.5.2 Ongoing forest loss to oil palm concessions

As second challenge for forest management has to do with managing the impacts of the expanding oil palm industry. Oil palm (*Elaeis*) was first introduced to Indonesia during the Dutch occupation, yet it has only been the last few decades that the industry has undergone rapid expansion (Casson, 2000). The easy availability of land and high international price for the oil palm products led Suharto, in 1996, to plan expanding the

area of land dedicated to oil palm to 5.5million ha by 2000 (Casson, 2000). Whilst shy of Suharto's vision, oil palm covers a total of 4.6 million ha in Indonesia (Sheil et al., 2009). This represents an increase of over 2100% since the late 1980s. The popularity of oil palm comes from the fact that the oil produced by these palms is incredibly versatile and cheap to produce, with up to three to eight times the productive yield of other seed-based oil crops (Wahid et al., 2005). The oil is used domestically as well as being exported for food and non-food products (Wahid et al., 2005). When processed, palm oil can also be used as a bio-diesel, a fuel source which has a potentially better energy/pollutant ratio than other hydrocarbon-based fuel (Sheil et al., 2009).

The high value and extensive production of oil palm has contributed to the Indonesian economy. In 2007 alone, export revenues from oil palm in Indonesia were over US$12 000 million (Sheil et al., 2009). The oil palm industry also provides district-level economic benefits through land fees, royalties and employment (Rist et al., 2010). There are also opportunities for local communities to benefit from the expanding oil palm sectors, particularly in the operation of the Nucleus Estate and Shareholder (NES) system. In the NES system, farmers sign portions of their land to a company, often 10 ha. The company, which collects many individual farmers' areas, develops as a commercial plantation comprising the core commercial area (*inti*) and the outer area (*plasma)*. The plasma area is, in turn, divided into smallholdings, often 2 ha, and returned to the farmer groups (Barlow et al., 2003; Rist et al., 2010). Even though this system does provide income and employment in areas where other sources of economic development may be limited, there have been many reported incidents of human rights abuses associated with the oil palm sector. These include poor employment conditions, intimidation and even violence towards local communities (Marti, 2008). There are also complications with the regulations regarding smallholders as the law, which allocates 20% of concessions to smallholder plantations, and whether this law requires the 20% to be inside or outside the HGU license area. There is also considerable inequality in the distribution of benefits between small-holders and the international corporate benefits. For example, the debt structure of the nucleus system can leave some small-holdings indebted to the establishing company for up to 14 years (Barlow et al., 2003). Yet despite these problems,

enthusiasm for developing oil palm plantations in Indonesia remains high and it has been reported that up to 20 million more ha of land has been reserved for oil palm development by local governments (cited from Rist et al., 2010).

Although oil palm plantations do confer benefits to the Indonesian economy, poor governance has meant that many of the benefits of oil palm have come at the expense of rapid conversion of tropical forests (Wilcove and Koh, 2010). Based on analysis of FAO spatial data, Koh and Wilcove (2008) argue that between 1995 and 2005, 56% of the expansion of oil palm plantations in Indonesia was at the expense of forested lands. In many areas this conversion has occurred in ex HPH (Darussamin et al., 2003). The contribution of poor management of HPH concessions, particularly to forest degradation, has already been discussed. However, even degraded forests can maintain ecological function and, in time, recover. By clearing remaining forests and establishing oil palm plantations there have been added environmental impacts, including biodiversity loss, as few forest dwelling species can inhabit areas under oil palm (Wilcove and Koh, 2010), as well as other landscape problems including increased fire hazard and carbon emissions (Sheil et al., 2009).

Importantly, poor governance and corruption in the management of the expanding oil palm industry is a key concern for the future management of Indonesia's forests. This is because plantations may only be established in the forest estate if it is zoned as conversion forests (HPK), meaning the area has been released from the forest estate. However, as with the HTI licenses, release permits from the Ministry give the plantation operator the right to cut and sell timber from within their plantation boundary. This has led to corruption in the placing of concessions in areas where there is considerable timber supply (Koh and Wilcove, 2008). It has also led to large areas being zoned to oil palm and cleared accordingly, with no plantations developed. For example, in West Kalimantan, only one million ha of land was planted with oil palm, despite 5.3 million ha of land being allocated under oil palm permits, suggesting that at the time, access to timber may still be a driving force behind deforestation and forest degradation (Casson et al., 2007 cited in Sheil et al., 2009). There have been efforts to improve the management of the oil palm

industry and minimise the impacts on the forests,[45] but it is clear that there are competing priorities over oil palm expansion and the ongoing management of forestlands.

3.6 Conclusion

This chapter has provided a background to the Indonesian case and presented information that further justifies the selection of Indonesia as a case for this research. Specifically, I described the importance of Indonesia's forests and the long history of activities that have contributed to high rates of deforestation and forest degradation. Beginning with colonial occupation, I have described the evolution of forestry regulations, and highlighted some key governance challenges that remain. Two key arguments from this chapter that are most relevant to the future chapters are: firstly, the ongoing tensions between the central Ministry and the districts over authority to award licenses and determine land-uses and secondly, the challenges of corruption and illegal activities in the forest sector. These issues will be analysed in greater detail in Chapters 5 through 7. Before this analysis, however, the next chapter provides a similar background for the case of Papua New Guinea.

[45] NGOs, for example Sawit Watch, have been particularly vocal in their efforts to improve the management of the oil palm industry, including campaigns to encourage oil palm expansion on forestlands that had already been degraded.

Chapter 4

The Papua New Guinea Case

4.1 Introduction

Papua New Guinea (PNG) is well-known for the high diversity of unique species in its forests, and for the diverse character of its people and systems of landownership. PNG is also renowned for a long history of corruption and mismanagement of its forest resources. This chapter presents a background to the history of forest management and the current status of forests, and forest exploitation in PNG. Before going into more detail of the history of forest governance and corruption, I begin with a brief introduction to the physical and cultural context of PNG. The second section describes the history of forest exploitation and describes the evolution of the legal framework relevant to forest management. This is followed by a more in-depth description of the current forestry Act, focusing on the system of licensing and the broader administrative structure. The final section highlights the key remaining challenges in managing forests in PNG, and the problems of Ministerial interference, bureaucratic capacity and the challenge of landownership. Whilst this background chapter attempts to cover a great deal of information, it is nonetheless selective—focusing only on a few key regulations and conditions in relation to forestry, deforestation and the broader context in PNG that are most relevant to understanding the following chapters.

4.2 The physical environment

4.2.1 Geography

PNG is located on the eastern half of the Island of New Guinea (of which Indonesia Papua is the west). The 462 840 km^2 of Papua New Guinean territory includes 85% on the mainland and the remaining 15% spread across over 600 islands. Of these 600-odd islands, New Britain, Bougainville, and New Ireland are the biggest. The geography of mainland PNG is dominated by the central cordillera which runs for over 2000 km from the northern corner of the Indonesian province of Papua down to the ocean in the southern tip of PNG.

Formed over millions of years of tectonic activity, the cordillera is a series of folding and rugged mountain terrain, which pans out to the lowlands of Western Province and eastern coastal areas.

4.2.2 People and landownership

With over 826 known languages spread over a population of only 7.01 million people (World Bank, 2011), Papua New Guineans are recognised as one of the most diverse nations around the world. The majority (88%) of PNG people live in rural areas (World Bank, 2011), which because of the rugged terrain makes trade and development difficult. These rural villages and towns rely on (both subsistence and marketable) agriculture, some fishing and non-timber forest products for survival. Education, particularly in these rural areas, remains low, and child mortality rates remain high (UNICEF, 2003). The remaining 12% of Papua New Guineans live in several (fast-growing) urban centres, such as the capital Port Moresby, and Lae. These urban areas have better access to services and markets, but they do suffer from high rates of crime, violence and poverty (Guthrie et al., 2005).

Socially and administratively, the structure of PNG society varies greatly across the territory; however, in general Papua New Guineans retain a strong sense of connection with their land and the people from that area (commonly referred to as the *wantok* system).[46] In much of the literature about natural resource management in PNG, people are referred to as landowners. Landownership in PNG, as in much of Melanesian culture, has particular social, historical and economic factors as land is fundamental to individual and group identity (for example see Filer, 1997; Sillitoe, 1999). To this end, customary land is well protected in legislation—it cannot be 'sold, leased, mortgaged or disposed of except in accordance with custom'.[47] It is also to a certain extent protected in *de facto*

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[46] *Wantok* is an incredibly complex phenomenon but generally it refers to strong kinship relationships. See de Renzio 2000 for some more description.

[47] According to section 132 of the Land Act 1996, 'Subject to Sections 10 [State acquisition] and 11 [lease leaseback], a customary landowner has no power to sell, lease or otherwise dispose of customary land or customary rights otherwise than to citizens in accordance with custom, and a contract or agreement made by him to do so is void.'

systems. That is, whilst there has been a great deal of land (legally and illegally) taken from customary owners,[48] the power of landowners remains dominant in PNG as customary landownership traditions, which for example define inheritance and the use rights of different resources, constitute some of the key governing rules in PNG's forests (Tararia and Ogle, 2010). The power of landowners and the challenge of resource exploitation in such a situation is evident in the many and costly disputes between the current liquid natural gas project and the many landowner groups affected (see Garrett, 2011).

4.2.3 Forest resources and the problem of deforestation

PNG is a naturally resource-rich country, with resource rents from natural resources contributing 36.4% of the country's GDP between 2008 and 2012 (World Bank, 2011). This includes resources such as gold, coal, gas and oil. PNG's 28 million ha of forests (FAO, 2011) are also a source of wealth. Unlike Indonesian teak, very few PNG species are known on international timber markets[49] (PNG FA, 2007b), and the rugged terrain in many areas makes harvesting difficult (Filer, 1997). Despite this, from 1990–2006, the forest sector contributed on average 7% to PNG's GDP (ITS Global, 2006a). This is no doubt an important contribution from forest exploitation, but these figures nonetheless underestimate the important subsistence value of forest resources, as much of the population of PNG depends on local resources for their livelihoods.

Data about the rate of deforestation and forest degradation in PNG is limited. One study suggests that since 1970 approximately 15% of primary forest has been cleared, with a further 8% degraded; a total of almost eight million ha (Shearman et al., 2008). The major causes of this deforestation and forest degradation, according to Shearman and colleagues, were logging (48.2% of net forest change) and subsistence agriculture (45.6%),

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[48] For further discussion on the process of land grabbing and the political economy customary landownership see Filer and Nikhil (1998) and Filer (2011).

[49] Some of the main commercial tree species that are exported from PNG are; *Homalium, Pometia, Calophyllum, Eucalyptus, Terminalia, Dillenia, Toona, Buchanania, Canarium, Anistoptera, Endospermum, Octomeles, Instia, Syzgium,, Celtis, Burckella ,Mastixiodendron, Dracontomelont, Canarium (PNG FA, 2007b).*

with lesser causes being fires (4.4%) plantations (1.2%) and mining (0.6%) (2008). However, these results have been criticised for overestimating the impact of swidden agriculture and underestimating the regenerative capacity of PNG forests (Filer et al., 2009).

The impact of deforestation and forest degradation in PNG has also not been well documented. The impact of deforestation and forest degradation on carbon emissions suggests that it has resulted in between 146 and 269 $MtCO_2e$ being released in 2007 alone.[50] Forest loss has implications for biodiversity loss. For example, a study of deforestation on New Britain island estimates that the loss of 12% of the forest cover could threaten up to 28 endemic bird species (Buchanan et al., 2008). Finally, forest loss and degradation has potentially significant impacts on the livelihoods of many PNG people, both directly, due to the loss of access to hunting grounds, or the changing system of swidden agriculture. Indirectly, many of the (particularly commercial) activities that contribute to deforestation and forest degradation also have wider impacts, including causing river pollution (for logging examples see Department of National Planning and Monitoring, 2003, 2004b). These impacts are exacerbated by the fact that many of the promised development and infrastructure benefits associated with the timber (or mining) industry have often failed to materialise. A review of existing projects (in part commissioned by the World bank) found that in general the 'benefits to landowners from logging generally last less than five years, and are too small to result in any long term improvements in socio-economic welfare, especially given the paucity of public services to augment and multiply their impact' (Review Team, 2004). That is, despite millions of Kina paid to landowners (and millions more to the national and provincial governments), the general conditions for most PNG people remain dire, as the literacy and mortality rates provided earlier demonstrate.

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[50] Filer and colleagues have heavily criticised this amount, because it is based on an overestimation of the rate of deforestation and a failure to account for reforestation or the actual practice of swidden agricultural system.

4.3 The management of forest resources

4.3.1 Colonial

Although European explorers had travelled past PNG in the early 16th century and there were some brief experiments by Christian missionaries (Dorney, 2000, p. 26), it was not until the late 19th century that colonial occupation really began. The Dutch claimed the western half of the New Guinea mainland in 1848 (now the Indonesian province of Papua). The north-eastern corner of the mainland, along with several islands, was taken under the colonial administration of the German Empire in 1884, under the name of New Guinea.[51] Three days after raising the German flag, the southern half of eastern New Guinea was claimed as British territory, Papua, and put under the administration of the Colony of Queensland (Dorney, 2000, p. 26). The colonial administration of Papua was transferred to the administration of the Commonwealth of Australia in 1909 and after WWII, under the guidance of the United Nations, the territories of Papua and New Guinea were united under the Australian colonial administration. Throughout this colonial period, these different powers developed several key regulations relevant to the evolution of forest policy and forest management.

Firstly, whilst the Germans efforts to establish an agricultural centre were largely disappointing,[52] they did develop several policies that became key forest legislation for many years. For example, the 1936-37 Forestry Ordinance, which lasted well into independence, was based on a German forestry ordinance and was adopted to cover all of PNG after WWII. This 1936-37 Ordinance was particularly important because it established the conditions by which the government could coordinate activities on land that was still held by landowners. That is, the ordinance established the conditions for the timber rights

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[51]The German colonial operations viewed New Guinea as a possible German Java, in reference to the agricultural and timber booms of the Dutch colonial administration in Java described in the previous chapter.
[52]The high rate of mortality of both the administration and the worker (particularly from malaria) and the constant battles with local groups over land meant that most agriculture efforts were abandoned quickly (Ohff, 2008).

purchase (TRP). Under the process of the TRP,[53] the government purchased the rights to harvest the timber products from landowners (rather than rights to the land), and then sold-on these harvest rights to a developer, in the form of permits and licenses (ODI, 2007, p. 7). Beyond the initial decision to lease their land under a TRP, the landowners had no control over subsequent decisions, such as which company would log in their area. Landowners were also denied many financial benefits, as systems of payments and debt by government left many landowner groups receiving very little for their timber (Barnett, 1990a).

In 1971, under Australian colonial control, the new Forestry (Private Dealings) Ordinance was introduced. The effect of the Private Dealings Ordinance was to shift much of the power of forestry operations away from the bureaucracy because it allowed landowners, organised into landowner companies, to negotiate directly with potential logging contractors. A successful negotiation led to the formation of Local Forest Area (LFA) agreements, which had to be approved by the Minister. Even though the Private Dealings Ordinance sought to more directly empower landowners, in practice they (or their representatives) often lacked the capacity to effectively negotiate these contracts. Many of the executives of these landowner companies were also engaged in collusive relationships with logging contractors, leading to the private capture of many of the profits that were meant to go toward landowner development projects (Forest Revenue Review Team, 2002; Review Team, 2004). The different types of corrupt activities that dominated that period of forestry in PNG are well-documented and continued into independence (Barnett, 1990a).

4.3.2 Independence

The transition to self-rule and eventual independence in PNG began in 1972, moving to be self-governing in 1973. When PNG became fully independent in 1975, significant governance challenges remained and the context of PNG independence was fraught with difficulties. This included 'weak administrative systems, foreign laws often at odds with

[53] Which were officially laid out in the 1951 forest policy statement.

customary laws and an elite PNG minority representing only 1 per cent of citizens' (Pitts, 2001). These challenges have been played out in the struggles and problems of forest management since independence.

Firstly, there were some attempts to create laws that better reflected and engaged with landowners. One mechanism to facilitate this was the creation of the Lands Group Incorporation Act (1974). This Act sought to legally recognise and engage customary groups by encouraging them to register as a formal group, called Incorporated Landowner Group (ILG). The ILGs are 'a registration of a group, rather than registering ownership over land, meaning that none of these measures interfere with the customary arrangement of temporary access rights to land resources for certain individuals' (ODI, 2007, p. 2). Under this Lands Group Incorporation Act, the members of the clan must submit an application to the Department of Lands and Physical Planning. The application should include a list of all members and a registration of assets of the group, such as a description of the land area. These applications are meant to be verified by government officials, for example, to ensure that the membership reflects the true and comprehensive list of landowners. Once this has been submitted, the application details are advertised in the national Gazette to allow for any concerns by others to be voiced. If no complaints are made, the group is formally registered. The registration was initially seen as a mechanism to promote community management of their resources, however it has become the key vehicle by which companies, such as logging companies (hereafter referred to as developers), gain consent from the landowners (Marru, 2002). ILGs are also often the main vehicle for the distribution of royalty payments from development activities.

As well as the ILG, the other formal bodies that have come to be representatives and key actors in the process of resource exploitation are the so-called landowner companies. Under the Companies Act, these are standard commercial companies.[54] Executives of landowner companies have also emerged as main actors, negotiating the conditions of logging contracts on behalf of the landowners, and also have major roles in managing the

[54]Landowner companies are required to have named shareholders and directors, to hold an annual general meeting, and to lodge annual company returns.

funds that are distributed to landowners through royalty payment systems. Their connection to actual landowners is often limited to including several ILGs as shareholders. The only assets that many landowner companies have are the customary lands to which they belong (Filer, 2011).

Even though these efforts were designed to enable landowners (and the country) to benefit from the exploitation of resources, in practice there continued to be major challenges. One of the major challenges was a result of the abusive and negligent practices of landowner company executives. The executives—who were meant to represent landowners and manage the distribution of royalties—were often self-appointed, with little experience of company management (Simpson, 1997). This meant that there were poorly designed contracts with logging companies, and royalties were often embezzled or misused. For example, in one case in West New Britain, the conditions of the agreements were that the landowner company, not the logging contractor, was responsible for meeting the forest management guidelines of the Department of Forests. Furthermore, widespread Ministerial interference occurred, with local and national politicians and Ministers promoting and failing to ensure there was due practice (Barnett, 1990a). The consequence was that in several areas, such as New Britain, there was significant destruction of forest cover, with few benefits to the nation and the people. It was this widespread corruption and other abuses that eventually led to then Prime Minister Paisa Wingti, in 1987 to instigate a Commission of Inquiry into Aspects of the Forest Industry, led by Judge Thomas Barnett.

4.3.3 The Barnett inquiry

The investigation by Judge Barnett took two years to complete and resulted in 20 volumes, seven interim reports and one final report and has been a crucial document to the evolution of forest governance in PNG. Judge Barnett uncovered widespread corruption, fraud and the abuses of privilege by politicians, industry officials and to a lesser extent the forestry bureaucracy. He describes an industry riddled with corruption and abuse as 'the practice of Ministers and senior public servants of negligently, and

sometimes deliberately, ignoring and contravening the laws of Papua New Guinea's Parliament and the policies of its government' (Barnett, 1990a, p. 18).

There were several key findings of the report that are relevant to the evolution of forest policy in PNG, and more specifically to the analysis and findings of this thesis. First was the ubiquitous problem of Ministerial interference, conflicts of interest and corruption. This included payments by logging companies to provincial MPs (one member of the national parliament reportedly received overseas travel and payments of K30 000 from a foreign logging company) and landowner company executives to ensure that their company was selected for the logging contract (Barnett, 1990a).

Secondly, Barnett's report documents the genuine failure of the PNG government and the landowners in logging areas to benefit financially from forestry operations. The losses to the government were particularly large due to the widespread practice of transfer pricing.[55] Poor regulations—which set low minimum sales prices for their timber, enabling companies to undervalue their timber and reduce tax payments—in conjunction with corrupt and complicit officials who failed to enforce regulations, meant that many companies failed to pay sufficient taxes. One company, Santa Investments, admitted to transfer pricing: in one year alone, they transferred over K1.2 million offshore. Another company, Gaisho Co (PNG) Pty Ltd, was able to transfer over K6 million in 14 years of operation. The amount that was lost from all transfer pricing activities is incalculable, but substantial.

For landowners, the conditions of many logging contracts—those between landowners, landowner companies and timber companies—highly favoured the interests of the timber companies. This was largely a consequence of the activities of local politicians who had claimed executive roles in the landowner companies, or of developing companies who provided lawyers for landowner companies. For example, the lawyer for the landowner company Mamirum Timbers Pty Ltd of New Ireland was also the lawyer for the logging

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[55]Transfer pricing refers to practices whereby industry undervalues the selling price of the timber, which reduces tax payments to the PNG government. Timber is then on-sold at a much higher price in a foreign location.

company seeking to negotiate an LFA. The conditions of the contract, which the lawyer organised, deprived the landowners of over K120 000 in just three shipments (Barnett, 1990a). In another case reported by Barnett, the contract of one logging agreement which required the New Ireland Otsuka Development Company to build extensive infrastructure (including a wharf, a town, and a furniture factory to name a few) was shown to be a sham, which the company had agreed to falsely. When pressured by the State to fulfil these infrastructure requirements, the company shut down and went into liquidation, leaving the landowners with no development. These are just a few of many cases reported throughout the various interim reports by Barnett.

Thirdly, Barnett uncovered a widespread failure by the government to enforce regulations and punish violations. Not one of the companies investigated was considered to be in compliance with conditions established under their logging contracts. In some cases the non-compliance was associated with infrastructure demands as described above. However, non-compliance also involved activities in the forest such as high-grading (the selective harvest of the most valuable species), over-harvesting, harvesting in prohibited zones such as slopes or river banks, and many more (see Barnett, 1990b, p. 67). Whilst Barnett made no specific investigation into the environmental impacts of these practices, the reports nonetheless document the rapid destruction of forests across regions of PNG.

4.4 Responding to Barnett and the Forestry Act

Following the release of the Barnett Report and a change of government, PNG went through a period of reform in the forestry sector. The primary outcome of this was the new Forestry Act 1991, (gazetted in 1992; hereafter the Act). The Act was the first substantial change in forest policy since the forestry ordinance of 1936-37. It replaced Forestry (Private Dealings) Act 1971, the Forestry Act 1973, and the Forestry Industry Council Act of 1979. It was a very complex and highly politicised process, particularly because of the involvement of the World Bank, which I discuss in more detail shortly.

4.4.1 The PNG FA and the administration

The main structural contribution of the Act was to establish the Papua New Guinea Forest Authority (FA), which replaced the Department of Forestry. The national forest service (NFS) remained the administrative arm of the bureaucracy. Importantly, the Act also established the National Forest Board (hereafter the Board), consisting of six members representing industry, civil society and relevant government departments. The aim of introducing this board was to reduce the high prevalence of political interference, particularly from Ministers of Forestry. To this end, the Board has responsibility over most of the functions of the FA including licensing.[56] In order to remain independent, the composition of the Board is legally defined. Many of the day-to-day functions of the FA are delegated by the Board to the managing director of the FA, whose appointment is also vetted by the Board.[57] Whilst the operation of the Board has greatly reduced the opportunities for Ministerial interference, there have nonetheless been many attempts by Ministers to interfere with this operation of the Board and the managing director, and there have been allegations of corruption within the Board, which I discuss further in section 4.5.1.

4.4.2 License types and procedures

The Act also sought to improve the licensing procedures by abolishing the older TRP and LFA licenses in favour of new license types. The first, and major, license for the timber industry is the Forest Management Agreement (FMA). The FMA are large-scale logging licenses. Unlike in the Private dealings Act, the FMAs effectively reinstated the government's exclusive rights to enter into logging agreements. However, landowners

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[56] Final licenses must be signed off by the Minister, but only on the recommendation of the Board.

[57] The selection of managing director has also been open to interference. In 2002, Minister Ogio sought to replace the managing director with David Nelson. The Board did not approve Nelson's appointment. This led to a standoff between the Minister and the Board. In response to this, the Board withdrew their delegation to the managing director and the FA essentially stopped functioning for several days (Industry representative. Meeting 2, 5 May 2011).

have increased ability to negotiate directly with prospective companies. There are currently 29 FMA in operation, covering 3.5 million ha (PNG FA, 2007a).[58]

The process for getting an FMA is complex and involves 34 steps, some of which were introduced to address the key problems of previous license types. Firstly, landowners (often registered into ILGs) have increased capacity for negotiating which company will log in their area and the logging conditions through the operation of the provincial forest management committee (PFMC). Beyond initial approval of an area for the FMA by the Board, project guidelines are developed at the PFMC, approved again by the Board, and advertised for tender. Prospective developers submit applications, several of which may be negotiated further by the PFMC. Once the full conditions of the operation are approved, and agreed to by the landowners, the PFMC provides a recommendation of which developer has been selected. The developer uses this recommendation in another application to the Board. If the Board approves, they provide another recommendation to the Minister, who signs the final FMA permit. This means that, unlike in the past where landowners were only involved in the process of leasing their land to government (under the TRP), according to the new Act there are more opportunities for landowners to engage in negotiating contracts. Furthermore, the system of multiple levels of government and the Board is meant to ensure that the applications are appropriately evaluated and confirmed by the independent Board.

A second type of license is the Timber Authority (TA). In colonial times, the timber authority was a small-scale license which allowed, for example, missionaries to buy timber directly from locals. However, these have essentially become another timber permit, allowing commercial operations to buy up to 5000 m^3/year directly from landowners. They are also meant to provide opportunities for local agriculture development. The TA, being a smaller area, does not require the formation of ILGs and given that the purpose of the TA is to clear forest for agriculture, there are also no provisions in the regulations for managing the timber supply.

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[58] There have been no new FMA signed since 2007; however, there have been extensions to some FMAs.

A final two license types, most directly related to forestry, are the Forest Clearance Authority (FCA) and the associated Special Agriculture Business License (SABL). An FCA can be awarded to companies or individuals to clear up to 500 ha of forested land at a time. The purpose of the FCA is to enable forest areas to be opened up to provide more land for population growth and agriculture expansion. Despite being a key part of the legislation for decades, recently the release of FCAs has come under intense pressure for their association with the release of SABL. Since 2007, over five million ha of land in PNG has been awarded to SABLs—mostly for oil palm. Of this, only six FCAs have been released; however, there has been considerable concern that logging companies are using SABL to get access to timber without having to go through the FMA process (Filer, 2011), a concern which has yet to be disproven.

4.5 Remaining challenges and governance concerns

Despite the reforms in the Act, there are nonetheless considerable challenges to the implementation of these regulations and the management of forests in PNG. Whilst there are many different challenges, I introduce only the three that are most relevant to understanding the problems of corruption and poor governance of forests. The first is the ongoing problem of Ministerial influence and interference with the management of forest resources, including the broader problem of corruption. The second is the issue of bureaucratic capacity, conflicts of interest and the monitoring of environmental standards. The final section is about the rights and responsibilities of communities, and the relationship between communities, companies, and government that has evolved in PNG.

4.5.1 Ministerial influence and interference

One of the central problems documented in the Barnett report were the problems associated with political interference. As I mentioned above, the 1991 Act was designed, in part, to reduce the risks of political interference particularly through the operation of the Board. The Minister is obliged to act on the recommendations of the Board. However, despite the prescriptions in the Act, there have been many attempts by consecutive

Ministers to interfere with this regulation. In 1994, for example, as PNG began to suffer from an economic crisis, the government of the day sought to fast-track several logging projects as a means to generate fast wealth. To do so, an amendment was introduced to parliament that sought, in part, to alter the composition of the Board. However, the World Bank, which at the time was involved with PNG to assist in economic recovery, was determined the Minister would not be able to alter the composition and powers of the Board or the budget of the Forest Authority (Filer, 2004, p. 95). The stand-off between the government of PNG (which argued on grounds of national sovereignty) and the World Bank (which insisted on strict enforcement and compliance with the original Forest Act) lasted for a year.[59] By the end of 1996, the government capitulated and reversed previous amendments restoring the independence of the Board (Filer et al., 2000). In another case, a Minister of Forestry tried to award licenses against the recommendation of the Board (Yadi, 2001); or sought to pressure the Board to approve a particular company. In 2001, then Minster of Forestry, Michael Ogio, wrote a letter to the Board reportedly saying 'I am now confirming my earlier directive to the National Forest Board dated 6th June, 2000 to officially endorse my decision and award the Josephstaal FMA to ASB Timbers at the coming Board meeting... Given the economic difficulties the government is experiencing and to attract more credible investors into the forestry sector, I direct that ASB Timbers is awarded the project and be invited for negotiations without further delay' (Yadi, April 11 2001,). This was in breach of the responsibilities under the Act. What these examples demonstrate is that despite regulations there is ongoing pressure to alter the structure and function of the Board and the FA in order to suit political needs.

4.5.2 Bureaucratic capacity and monitoring environmental standards

A second main concern for PNG forestry management has been the problem of widespread non-compliance with the environmental standards of logging operations (Review Team, 2004). This is particularly non-compliance with the procedures stipulated in the logging code of conduct, which spells out the procedures for planning and conducting

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[59] During this time the World Bank refused to release the second half ($25 million) of the ERP.

logging activities, such as skid line placements, road construction, and harvesting technique, to name a few. All FMA areas are required to have NFS officers[60] permanently on-site to report on compliance with this code. Beyond activities in the field, in 2001, third-party independent monitors Société Générale de Surveillance (SGS) were engaged to verify the legality of timber exports[61] from PNG. Whilst this has led to some improvement, particularly for the reputation of PNG timber, the operations of SGS are confined to the point of export. They are not able to inspect logging practices in the field, which is mainly the responsibility of the NFS officers assigned to each company.

Despite the presence of NFS officers, there is considerable evidence that many companies are failing to meet the conditions of the logging code. In 2003 and 2004, there was an independent review of compliance of 17 logging companies with the code and other regulations (such as labour laws). The review team documented a variety of illegal activities—including failure to plan skid areas, lack of vine cutting, excessive damage to residual stand, topsoil bulldozed into watercourses, and debris not removed (Review Team, 2004). In many of the reports they detail that the illegal activity had not been sighted by the NFS officer, or that logging plans had been approved with obvious flaws.

There are several reasons for this challenge. Firstly, the motivation for companies to operate illegally is reportedly not always for their own benefit. One logging company field managers reported that they cut trees inside the buffer zone at the 'request of the landowners themselves' who claimed that 'their villages were neglected by the Government so long, and that they are in dire need of money to uplift their standard of living' (Department of National Planning and Monitoring, 2004b). More generally, there is a widely documented problem of the quality of training and the interests of NFS officers. The remoteness of many FMA areas combined with the limited financial capacity of the FA means that many of these officers at logging sites rely heavily, if not entirely, on the support of the companies they are tasked with monitoring. This includes support for accommodation, food, healthcare and transport. This form of conflicts of interest is a well-

[60] Depending on the size of the FMA, more than one officer may be based at the logging camp.
[61] The role of SGS is to independently verify that all timber exports have the appropriate permits.

documented problem in PNG and is thought to be one of the reasons for widespread failures to monitor logging operations, and is discussed further in subsequent chapters.

4.5.3 Customary rights and development

A final challenge that I discuss in this chapter is the continued efforts to recognise and engage landowners. As I described earlier, the process of registering ILGs and negotiating contracts through the PFM was designed to identify and engage landowners in the use and management of their resources. In practice there are many problems with registration of ILGs and the activities of LOC, particularly in rural areas.

In terms of registering the ILGs, there is considerable evidence of ILGs being registered that have not developed proper membership lists, meaning the members of the ILG are not actually the full list of landowners in the area; or ILGs have failed to supply evidence of their actual land areas. The recent commission of inquiry into the SABL uncovered cases from all over PNG where landowners were disputing ILGs that had been registered over their areas (CoI, 2011). Furthermore, most timber operations in PNG over the past decade have suffered from constant disputes between and amongst landowners and registered ILGs, suggesting that the initial process of registration has failed to successfully identify and integrate landowners (Review Team, 2004). Secondly, despite efforts to reduce the power of landowner company executives in the Act, the power of true landowners has frequently been captured by individuals or groups claiming to represent them and who then use this authority to gain private payments from developers. This has not only led to poor contractual conditions, such as those mentioned above, but to widespread corruption, embezzlement and mismanagement of royalties from timber operations. For example, in one case, landowners reported the inappropriate use of landowner company funds to pay for 70 landowners and company directors to travel overseas on a 'marketing' exercise (Department of National Planning and Monitoring, 2004a). In other cases, landowner executives have directed the spending of community royalties to companies that they manage privately, paying off local monitors to ignore such illegal activities (Department of National Planning and Monitoring, 2003). This means that millions of dollars of royalties are failing to reach the true landowners. What these challenges

demonstrate is that whilst there has been an evolution of forest management in PNG, corruption, fraud, poor governance and environmental degradation have remained a dominant challenge to improving forest management.

4.6 Conclusion

As I described in the Introduction to this thesis, the selection of Indonesia and PNG was made on the basis of an inherent interest in the conditions of these two countries. In this chapter I have provided a more detailed description of PNG forest sectors in order to justify its selection as a case for my research. Specifically, I introduced the problem of corruption and poor governance of PNGs forests and the extent of the problems of deforestation and forest degradation—particularly for landowners. As a second motivation for this chapter, I also provide an introduction to the history of forest management, particularly focusing on the evolution of licenses and the challenges associated with the particular structure of landownership in PNG. This is by no means a comprehensive analysis of the issues of landownership and its implications for forest management; rather, I sought to provide a background to PNG that will be necessary for understanding the subsequent chapters. The next chapter is the beginning of the results section of this thesis where I present the results and analysis of the grounded theory of forest governance.

Chapter 5

Negotiating laws and interests. A grounded theory of forest governance

5.1 Introduction

Governance of the world's forest resources has become a key policy and academic concern (Agrawal et al., 2008; Contreras-Hermosilla, 2007; Kanowski et al., 2011; Moeliono et al., 2009; Sikor and Stahl, 2011; Smith et al., 2003a; World Bank, 2006b). Whilst there is ongoing debate over what constitutes governance, there is some consensus that governance refers to the 'rules of collective decision-making in settings where there are a plurality of actors or organisations and where no formal control system can dictate the terms of the relationship between these actors and organizations' (Chhotray and Stoker, 2010, p. 3). Concern about the quality of governance of forests is driven primarily by the idea that many of the difficulties and problems of global forest management, and the associated high rates of deforestation and forest degradation, are caused by poor governance (Bottazzi and Dao, 2013; Umemiya et al., 2010; World Bank, 2006b). There is some support for such claims (for example Bulte et al., 2007), but the results of these studies are complex and contested (Tacconi, 2011). This is because many factors—political, economic, and historical—have been shown to affect the governance process, and because the process of governing resources varies greatly in different contexts (for example McCarthy, 2004; Smith et al., 2006). The context-specific nature of governance means that in order to understand how it relates to deforestation and forest degradation, it is vital to understand the local processes of forest governance. Secondly, much of the forest governance research has targeted specific governance factors, such as illegal logging and decentralisation. There is less research understanding the holistic process of governance, and particularly the day-to-day process of governance in different areas. Understanding the more integrated process of governance is therefore important to understanding how poor governance may contribute to deforestation and forest degradation.

In order to develop this localised and holistic description, this chapter presents a grounded theory of the process of forest governance. The next section provides a general background to the literature on governance. Rather than identifying theoretical concepts to be tested, the point of this review is to justify the research interest in forest governance and to identify ideas that are most relevant to the subsequent grounded theory (Glaser, 1978). The second section presents the grounded theory of forest governance. The core process of governance that emerged from the data was a negotiation over if and how regulations are implemented. I then outline the three key strategies that actors engage in to influence this process of negotiation over implementation. The final section returns to the literature, particularly the literatures of compliance and legitimacy theory, as a way of theoretically analysing the results of the grounded theory. A brief discussion about the implications of the findings of this grounded theory for understanding what constitutes poor forest governance concludes the chapter.

5.2 Background to forest governance

With themes dating back to ancient Greece, governance is by no means a new concept (Court and Hayden, 2002). What is new, however, is the resurgence of the term, particularly in the last 20 years, to become one of the key concepts in the development literature and practice. One of the early focuses of the governance literature was part of an attempt to explain why countries' response to aid and resulting development differed (Leftwich, 1993; World Bank, 1989). That is, governance was seen to influence development, and good governance was a requirement for development. Indeed, the good governance agenda was used by international agencies, such as the World Bank, to place conditionality on aid for countries that were seen to have weak governance, or to select aid recipients based on perceived quality of governance (Leftwich, 1993). This agenda also allowed international agencies to engage with the political dimension of countries' development; indeed, the integration of economic and political dimensions is one factor attributed to the attraction of the governance concept (Court and Hayden, 2002; Santiso, 2001).

This attention to the political dimensions reflects the fact that the early view of governance was very close to the term government, in that governance was defined as the things that governments do (Court and Hayden, 2002; Stoker, 1998). Whilst this was a common definition and is evident in some of the more recent literature (Smith et al., 2006), the governance agenda has come to represent the activities of a broader range of actors. That is, the term governance has evolved to explicitly acknowledge the roles and relationships of multiple actors and to recognise that decision-making practices in a country (and consequently a country's response to aid) did not rely solely on the authority of state institutions (Stoker, 1998). This idea of fragmented authority between state and non-state actors, such as NGOs or transnational corporations (Paterson et al., 2003), has been a key component of the governance idea and, as I describe further shortly, has been a key reason why governance has become a dominant area of study for understanding forest use and change.

The ideas of multiple actors and fragmented authority are key to the concept of governance, but there are nonetheless many definitions of governance. These definitions vary over whether governance refers to the rules, or how the rules are implemented; to daily human actions and intentions or the process of steering society towards a particular state (Court and Hayden, 2002). Many development agencies focus on the public administration aspects of governance.[62] Daniel Kaufmann and colleagues, who initiated the Worldwide Governance Indicators (WGI) program at the World Bank, define governance as 'the process and institutions through which decisions are made and authority in a country is exercised' (Kaufmann et al., 2012b). The authors go on to explain that this includes 'the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them' (Kaufmann et al., 2009). Whilst this definition has been criticised for failing to distinguish governance from the normal process of policy and

[62] For example, the United Nations Development Program defines governance as 'the exercise of economic, political, and administrative authority to manage a country's affairs at all levels' (UNDP 1997, 2-3).

administration (Court and Hayden, 2002), the World Bank's full definition does emphasise an important component of governance, focusing on the work of government and the institutions thought necessary to promote effective government.

By comparison, the concept of governance that is more prevalent in the academic literature is based on a system that does not have a single state authority guiding decision-making. That is, as stated above, governance is commonly understood to be about 'the rules of collective decision-making in settings where there are a plurality of actors or organisations and where no formal control system can dictate the terms of the relationship between these actors and organizations' (Chhotray and Stoker, 2010, p. 3). This definition includes many of the key features of governance from the academic literature, including fragmentation of authority between different state and non-state actors (Krahmann, 2003b), and the recognition of the role of both formal and informal institutions (Gibson et al., 2000; Paavola, 2007). The latter definition is therefore taken as the base-definition in the grounded theory presented here, as it incorporates the key principles of governance evident in the literature, and also reflects key ideas of governance that emerged from the data collected for this research.

Beyond identifying characteristics that define governance, such as fragmented authority, there has also been a considerable amount of research seeking to understand how to judge the quality of this process. One of the key conceptions of good governance comes from the World Bank's WGI program. Kauffman and colleagues identified six dimensions of governance—voice and accountability, political stability and absence of violence, government effectiveness, and regulatory quality, rule of law and control of corruption—which they argue are the key features that determine the quality of governance (Kaufmann et al., 2012b). Based on a variety of data sources, they have sought to measure the quality of each of these dimensions within countries as a way to compare the quality of governance between countries and to track governance changes over time. The WGI have been prepared for 215 countries for the period 1996–2011 and, along with other

indicators[63] such as the International Country Risk Guide (ICRG),[64] have been widely used by researchers to determine the impacts of different governance quality on a variety of development characteristics, such as growth and foreign direct investment (Morrissey and Udomkerdmongkol, 2012), and environmental pollution levels (Barrett et al., 2006; Dasgupta et al., 2006). The concern over the impacts of poor governance has also been extended to research on forest management (Andersson and Gibson, 2007; Blaser, 2010; Bulte et al., 2007; Umemiya et al., 2010). That is, determining the quality of governance in different contexts has become a key element of research seeking to understand the impacts of poor governance on development, aid and forest management.

As I stated in the introduction chapter, my interest in forest governance is due to the perceived impacts of poor governance on the rate of deforestation and forest degradation. That is, whilst there has been considerable amount of research seeking to understand the causes of deforestation, much of this has focused on discipline-specific factors, such as political science explanations of deforestation (Dauvergne, 1994), or on so-called proximate and underlying causes of deforestation (Geist and Lambin, 2002). The attraction of governance in forest cover change research is that it provides a more integrated, inter-disciplinary way to assess the causes of deforestation and forest degradation (Tacconi, 2011). This attraction has led to a considerable amount of research seeking to understand the relationship between the quality of governance and the amount of deforestation and forest degradation. Indeed several studies have provided evidence that poor governance, measured by WGI and other indices, is linked to higher amounts of deforestation and forest degradation (Barbier, 2004; Bottazzi and Dao, 2013; Bulte et al., 2007). These studies have identified different mechanisms by which

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[63] Many different organisations have developed their own quantitative governance indices. Some of these indices are based on specific agendas of the organisation, such as the indicators used by the NGO Freedom House. Others have been developed by business to measure efficiency for business operation, for example the ICRG (see below). Some also measure individual indicators, such as Transparency International's Corruption Perception Index (CPI).

[64] The International Country Risk Guide (ICRG) is compiled by private company The Political Risks Services (PRS) Group and comprises 22 variables in three subcategories of risk: political, financial, and economic (PRS Group, 2013).

governance may impact upon forests,[65] and in doing so highlight some of the integrated, inter-disciplinary processes that drive deforestation and forest degradation in different countries.

Whilst such studies have highlighted potential key mechanisms by which poor governance may contribute to deforestation and forest degradation, there are nonetheless two key problems with their findings and the particularly problems with the use of nationally aggregated perceptions indices of poor governance and corruption. The first main problem is that the definitional issues of governance mentioned above create challenges for efforts to identify and measure the quality of governance in different contexts. For example, the conception of governance of Kaufmann and colleagues, and their WGI in particular, have received criticism for their purported lack of internal consistency and construct validity. In a detailed analysis of the methodology used to create the WGI, Thomas (2010) argues that there is little theoretical evidence to support the claim that the six dimensions which underpin the WGI are an accurate reflection of the theoretical concept of governance. A second main problem is that measures of governance built on perceptions may be inaccurate, partly because the perceptions used to create these indices are not measuring the theoretical construct they purport to measure (Thomas, 2010), and partly because perceptions data have been shown to have little resemblance to actual levels of governance factors (Olken, 2009). These factors challenge the validity of using quantitative measures to understand what governance is, and how governance processes may affect forests and draw attention to the need for more ground-up understanding of governance.

Another criticism of perception indices like the WGI has come from the findings of the qualitative governance literature, which has demonstrated the context-specific nature of the features commonly used to measure the quality of governance. That is, qualitative research, often based on case studies, has identified many local factors that can affect governance processes. For example, research into the decentralisation of forest management has pointed to issues such as local social and financial capital (Larson, 2002),

[65] These studies are discussed in more detail in Chapter 7.

public accountability and participation (Agrawal and Gupta, 2005; Xu and Ribot, 2004), political power interests (Ribot et al., 2006), historical patterns of power distribution and informal institutions (McCarthy, 2004), all of which can impact upon the outcome of decentralisation reforms (see Barr et al., 2006; Tacconi, 2007a). Studies on aspects of governance such as the rule of law (Contreras-Hermosilla, 2007; McCarthy, 2002b) and community-based forestry (Agrawal and Chhatre, 2006; Blaikie, 2006; Klooster, 1999; Nygren, 2005) have also identified how context-specific factors, such as historical land-tenure arrangements, can affect these aspects of governance. The findings from these qualitative case studies therefore challenge the use of nationally aggregated perception indices, particularly when used in cross-country comparisons. These studies also support the claim in my research that understanding local governance processes is vital to determine if and how poor governance may impact upon forests.

These qualitative studies do complement the quantitative governance research described above, and provide insights into the complex, context-specific process of governance, but there are some gaps in this literature. Firstly, whilst the quantitative research noted above has treated governance as an integrated whole, the qualitative studies have typically focused on only one or two specific governance features (for example corruption and illegal logging Smith et al., 2003a). By focusing on isolated governance features, and how they operate in a specific context, these studies often fail to provide a more holistic description of the governance process. This is an important gap, because governance factors interact in complex and dynamic ways. In order to understand the governance process, it must come from this more complex manner. Secondly, the features studied are often derived from the broader literature on governance, many of which are treated as universal features of governance. By examining these features in specific contexts, qualitative research may have failed to identify locally specific governance characteristics and processes. That is, the top-down approach may miss local factors that are relevant to the process of governance. Finally, research that has adopted more inductive methodologies and sought to identify localised processes has often been conducted during periods of dramatic change (for example Skutsch and McCall, 2010b; Smith et al., 2006). Although focusing on periods of change has been fruitful in identifying historical

biases and suggesting future outcomes, there is also a need to understand governance processes in times of relative stability. This is not to say that all of the qualitative studies have these gaps; many studies have information that is relevant to filling these gaps. This review does highlight however, that there is a need for more specific ground-up study of what constitutes forest governance, particularly during periods of relative stability.

Governance, and forest governance specifically, has been a major part of the development agenda and of forestry research for decades. Despite this body of literature, some clear gaps remain in our understanding of what forest governance is and how it may impact upon forests. Firstly, evident in the many definitions provided above, there is ongoing debate about what governance is, what the key features of governance process may be, and how they may interact. This is important because, as described in the qualitative case-study literature above, the process of governance can be very context specific. Many of the factors generally associated with governance, such as participation and the rule of law, may or may not be important in a specific area, and are likely to interact with other governance factors in complex ways. In order to answer the research question of this thesis, there is therefore a need for research focused on conceptualising the processes of governance that actually happen in forested areas. The findings of the grounded theory presented below rely on the local case studies in order to develop an integrated and ground-up perspective of what governance is to those involved in governance, and how different actors in Central Kalimantan and PNG practice it.

5.3 The grounded theory of forest governance

The core process of governance that emerged from these data was the negotiation over if and how regulations would be implemented. That is, the content of regulations formed the base of different activities described by participants; negotiations and the decision-making of governance were about if and how to deviate from the activities prescribed in different regulations. There are of course governance processes associated with forming policies and regulations; however, these were not investigated and developed as part of this grounded theory. Rather, I was interested in the process of governance as it happens, day-to-day 'in the field'. This focus on implementation was primarily driven by the fact

that neither country has had any major legal reforms or new regulations in the past decade.[66] In order to understand what is happening in the forests, my focus was therefore on how the existing regulations are implemented. This meant that the interviewees were not policy-makers, but actors engaged in implementing regulations or actually doing activities (for example, industry development or conservation). Their responses were therefore describing the factors that influenced negotiations over if and how regulations would be applied. The components of this grounded theory therefore describe the key processes and strategies, prominent concerns and interests that influenced how respondents negotiated the implementation of regulations.

Three conceptual categories emerged from the data collection and analysis: prioritising, legitimating activities, and controlling strategies; together, these categories incorporate the key processes involved in forest governance (Table 5.1). Within each of these categories, there are different factors and processes that affect how regulations are implemented. The detailed description of each of these categories, and some of the interaction between them, are developed in the next section. Whilst description of the categories treats them as discrete, in fact the three processes are interlinked, which means that some of the features described are common across the three categories. One particular feature that is evident across the three processes is the idea of a 'semblance of legality'. Even though a semblance of legality is not itself a strategy to influence the implementation of regulations, the idea of a semblance of legality emerged from the data as a key factor affecting the three categories. That is, a semblance of legality is conceptually different from the three categories, but it is still related to the process of governance, and it is described in detail at the end of the next section.

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[66] There have of course been amendments to regulations, some of which have been very recent. For example, new regulations introduced to manage programs to Reduce Deforestation and forest Degradation (REDD+). However, the descriptions by participants in this research are still focused predominantly on aspects of implementing current regulations and did not explain any major reform processes.

Table 5.1. Key processes of forest governance.

Grounded theory of forest governance		
Key process: Negotiation over if and how regulations are implemented.		
Conceptual categories		
Prioritising	**Legitimating activities**	**Control Strategies**
There are multiple interests and actors must negotiate to prioritise what activities happen when	Activities, such as community engagement programs, that different actor groups engaged in to build legitimacy for their core	Strategies to get control over the negotiation over if and how regulations are implemented
Key characteristics		
Multiple interests that not necessarily compatible	Manage and distribute information to build support for a program	Managing expectations important for keeping legitimacy and control over the negotiation
Legal compliance/enforcement is one interest that can be prioritised	Managing expectations: not promising too much important for legitimacy	Controlling the collection, analysis and distribution of information to control the negotiation
Capacity to implement regulations or influence others priorities	Legality can be one part of legitimacy: semblance of legality	Positioning to get yourself or those dependent into key decision-making roles

5.3.1 Prioritising: Capacity and interests

Prioritising, for this grounded theory, refers to the process that different actors engage in to decide which activity may be condoned at different times. The idea of prioritising emerged from the data as respondents described their multiple interests in how forests and forestlands were used. These different interests and roles identified by respondents included profits, rights, environmental protection and enforcing the law. Respondents identified how many of the interests associated with forest use were non-compatible and as such respondents engaged in a negotiation over which specific interests may be prioritised at different times. The process of prioritising is therefore about how different interests are selected and followed by actors. This is important for the governance process that emerged from this research, because the process of prioritising is about how decisions about the implementation of regulations are made.

Of the many different interests that respondents discussed, a central interest revolved around issues of legality. The groups of actors, private sector, government and civil society/NGO, described different aspects of their interest in legality. For companies, for

example, the priority of legality was directed towards issues of compliance and the need to be legal. This need was driven by concern for legal punishment and for potential damage to a company's reputation from engaging in illegal activities. As a respondent from a company described, they refuse to pay bribes, and are called 'stingy' by local government officials, because 'they are a big company with a good reputation' and any allegation of impropriety would be bad for business (Multinational company representative. Meeting 51, 14 July 2011). As another forest industry representative described, 'the way the world is going now, we need to be monitored and seen to be legal' (Meeting 2, 5 May 2011).[67]Government respondents on the other hand, described 'following procedures', their own 'legal responsibilities' and/or 'ensuring compliance' of the private sector, as their main priorities associated with legality. However, there were variations within the responses by government respondents. This was particularly evident between the national and the district governments in Indonesia, where district governments were far more concerned with ensuring compliance of the private sector and dealing with the conflicting regulations. Whereas the national-level officials had a much broader interest with legality, in terms of 'following procedures', setting up institutions to 'coordinate regulation' and 'building capacity' of district officials to enforce the laws. The respondents from civil society and from communities often described more complex interests with respect to legality. Partly, they expressed interests associated with monitoring activities of the other actors and a general desire for companies in their areas to 'follow the rules' (Meeting 62, 8 September 2011). However, legality was seen as less of a priority compared to issues of community rights, environmental protection, or infrastructure, such as roads or electricity, which I return to later. These interests show how there is a priority to complying with, or enforcing, regulations. It is, however, clear that the process of prioritising involves priorities for engaging in, or condoning, illegal activities.

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[67] The issue of being 'seen to be legal', as opposed to actually being legal, is something I return to later in the chapter because it is important to understanding the process of prioritisation.

Respondents in both countries identified problems with the content of regulations as a factor driving the process of prioritisation. This is because, whilst there are incentives associated with being legal, there are often barriers to being legal, and incentives to being illegal. The barriers to being legal included the gaps in regulations that impacted upon the management of forests (Government representative. Meeting 37, 25 March 2011). Again, different actors had a different sense of the problems of the regulation, with national governments claiming that the regulations were 'too complex to be implemented' because of lack of local capacity. Alternatively, even though there are some benefits to complying with regulations, compliance may also be a barrier to achieving other interests. This perspective, that being legal was a barrier to achieving other priorities, was described by different respondents as a consequence of a variety of problems with the regulations. The problems identified by respondents included that regulations were overly complex and time-consuming, or that the regulations were 'not good' because having been made by those in the central government, they did not match local conditions (Government representative. Meeting 39, 15 June 2011). The perceived problems with regulations, particularly the disparity between local interests and the regulations, are key to understanding how the process of prioritising can support illegal activities in each country.

The specific problems with the regulations, and how this impacted the negotiation over the implementation of the regulations, differed between Indonesia and PNG. In Indonesia, a major problem with the regulations identified by respondents was the issue of land-use zoning. The fact that many areas that did not have forest cover, and that even areas that had already been developed as urban areas were still legally zoned as 'forest estate', were seen to create a barrier for development, as any proposed activity required costly licenses from the central Ministry of Forestry. Officials from district and provincial governments in Indonesia described this problem in relation to their need for development (roads, jobs and industry) and as they saw it, the power of the central government (particularly the Ministry of Forestry) to interfere with this development. In PNG, a main perceived problem with the regulation was the lack of (financial and technical) capacity of the government to implement those regulations. Respondents frequently explained that illegal activities were occurring because the government did not have the capacity to

conduct the surveys and provide legal documentation for the activity. Indeed, this has been a well-documented problem in PNG for decades (Department of National Planning and Monitoring, 2003). These different types of problems with the regulations, and different perception by different actors, impacted upon the process of prioritising and whether it resulted in legal or illegal activities.

Whilst there were interests associated with complying with regulations, the problems with the regulations described above highlight the many different interests that may also be prioritised. One prominent interest that could also be prioritised was local development. For many of the respondents, development, particularly development for local communities, was described as a key priority and often justified illegal activities. In PNG, a forestry official explained that they were focused always on building the capacity of the landowners and giving them opportunities, which sometimes is difficult because it is so time-consuming to follow the legal process (Meeting 6, 12 May 2011). In Indonesia, a similar sentiment was expressed when a district mining official described how they allowed illegal artisanal mining to continue in forested areas because the regulations (to get a local mining permit) were too costly and complex for communities and if they [the government] stopped illegal mining 'how about the community, what will they eat' (District government official. Meeting 42, 16 June 2011). In practice, this priority took the form of government agents (or others) allowing and supporting activities that may contribute to development, but that were not necessarily legal. For example, government respondents and newspaper reports described many companies (mining and plantations) that were operating without full legal licenses (JakartaGlobe, 2011). Respondents described how complex and unnecessary regulations created a barrier to development and therefore did not need to be prioritised.

This does not mean that the need for development was always the key priority, as the idea of a development imperative may also be a false justification. That is, the priority of the development imperative provided a socially acceptable, but false, justification for conducting or condoning illegal activities. In such instances, the real priorities are less socially acceptable, for example, to create opportunities for bribes. However, trying to understand when legitimate development needs and when other interests were affecting

prioritisation was impossible to determine from the data collected in my research, and in fact, any outcome may be a combination of both interests. This highlights the complexity in understanding which interests are being prioritised in different contexts, and how this may affect whether, and how, regulations are implemented.

Beyond legal compliance and local development, other key interests which emerged from the data included environmental protection and engagement with local communities. In the case of environmental protection, this was often a key interest expressed by environmental NGOs who saw legal compliance as insufficient to serve their interests. For these actors, environmental protection was often associated with others' interests. For example, environmental protection was promoted as a means to secure long-term economic development, or increased engagement for local communities. For communities, a key interest was to do with engagement and development opportunities. Regardless of the legal process, there were strong interests expressed by communities to be consulted and engaged in decision-making about resource use in their area. This was often also tied to concerns about livelihoods and other development opportunities associated with resource use, particularly jobs (Meeting 33, 18 March 2011). Importantly, many respondents from both these groups described situations where their interests conflicted. For example, respondents described cases where efforts by environmentalists to protect the environment resulted in trauma for communities, whose livelihoods were jeopardised by conservation practices (NGO representative. Meeting 32, 18 March 2011; Community focus group. Meeting 33, 18 March 2011).

The activities of other actors such as NGOs or communities, who can also monitor and expose activities, can affect decisions by companies and government agents to either comply/enforce regulations, or to act illegally. The activities of NGOs and communities could result in higher priority given to legal compliance, or it could lead to increased support for illegal activities and a semblance of legality. Two key factors emerged from the data that determined whether the activities of NGOs and community resulted in a greater degree of compliance. The first are the interests of the NGOs and communities with respect to legality, secondly their capacity to influence the priorities of others. In the case of the former, whilst many NGOs purported to promote legal compliance, they also

promote activities beyond compliance, for example, encouraging companies to engage in community development programs beyond the level required by law. On the other hand, companies have reported overharvesting within their concessions and harvesting timber in protected zones at the behest of communities who petition the company to harvest more timber so the community can get higher royalty payments (DPNM, 2004). In the case of the capacity of these actors to influence prioritisation of companies and governments, factors identified from the data include the reach of NGOs (particularly whether the NGOs are able to influence international markets), the support of NGOs for communities to voice their concerns, and the relationship between communities and government. NGOs that have the reach to affect international markets, and thereby reduce market access for illegal timber for example, can force companies to prioritise compliance in order to maintain market access. If communities have a good relationship with government agents, they can directly report to government if there are illegal activities (Government respondent. Meeting 55, 9 August 2011). This is not to say that such reporting can always be successful: many community respondents described how their efforts to report illegal activities were often ignored. This highlights how the process of prioritisation is a negotiation over the relative power of different actors and their interests. NGOs and communities can affect the process of prioritising, but often their monitoring and reporting of illegal activities is not sufficient to alter the priorities of more powerful actors. This shows that prioritisation involves a complex negotiation over the interests and the relative power of different actors that ultimately affects if and how regulations are enforced.

It is important to note that respondents also described a partial enforcement of the regulations. Some illegal activities may be condoned by government agents in the short-term, with the expectation that in the future the illegal activities would either be legalised, through a change in the regulations, or that the company involved would eventually comply with the existing regulations. A government representative with the environment department in Indonesia said that they did not enforce some of the environmental regulations for the new oil palm companies in their district because many of the oil palm companies were too busy setting up their commercial activities and would need more

time to be able to comply with all the rules. The government agent explained that in three to five years time those oil palm companies would be in a position to comply with the environmental laws (Meeting 44, 27 June 2011). Another government official described how they were waiting to resolve issues with land-use plans before they would force companies to apply for further licenses from the central Ministry (Meeting 16, July 2012).

Company respondents also identified this trade-off, saying that often they were complying with the regulations, but the bureaucratic process had not caught up. This meant that despite the company complying with the regulations, the government had not yet monitored the company's compliance (PNG Meeting 20, 10 February 2012). This shows that whilst priorities may favour some illegal activities, it does not necessarily mean that in the long-term the regulations will not also be enforced.

Finally, it is important to note that the factors affecting prioritisation could also be more passive. That is, government officials may not explicitly condone some illegal activities; rather, they might have little capacity or authority to enforce the regulations. For example, in PNG, regulations are frequently ignored because local officials have little capacity—particularly in relation to big companies. As one former forestry official explained, 'It is from the top, you cannot do much when you are down there. When you start making noise, they shift you out' (Meeting 12, 20 May 2011). This kind of pressure can also affect decision-making at the national level. A respondent from the PNG Forestry Authority (hereafter the PNG FA) explained that they frequently approved what they saw as inappropriate plans for the special agriculture and business leases (SABL) because the procedure for getting permits involved three other departments, and once those three had approved the proposals, there was little capacity for the PNG FA to question the validity of the proposal (Meeting 19, 19 February 2012). No doubt this could also have been an excuse for their support of poor-quality projects; however, it does point to the fact that there are complex reasons, beyond specific priorities, that impact upon if and how regulations are enforced.

This process of prioritising is therefore a negotiation process that includes the formal processes of the state and the informal interests. There are a variety of factors that

influence priorities, some of which are developed further shortly. However, it is important to also note that this process of negotiation is ongoing, as interests, priorities, and capacities may change. This includes allowing business activities to continue despite them not fully complying with the regulations, for example operating without full licenses, on the expectation that the business will apply for licenses, or meet all legal requirements at a later date.

5.3.2 Legitimating activities

Legitimating activities include different actions that are designed to build legitimacy for the actors' primary interests: logging, conservation and so on. Legitimacy is understood here to be about the perceived credibility of, and broad support for, an activity, and it is vital for understanding what activities are allowed to happen under different conditions. Two main aspects of legitimating activities emerged from the data. The first involves characteristics of the legitimating activities themselves—the types of legitimacy and actors' motivations. The second is about managing the expectations of different actors. The success of different legitimating activities can impact on what is allowed to happen in the forest; so legitimating activities are an integral part of resource governance.

All respondents, but particularly those from companies and NGOs, described the importance of having good relationships with local communities and government, of engaging with these actors, and of sharing information, all of which demonstrate the importance of legitimacy. That is, these features are all part of building support for a particular idea or activity, such as the development of an oil palm plantation, and are components of the concept of legitimacy as it is used here. There are a variety of different activities which actors engage in to build legitimacy, including conducting community meetings, preparing and distributing informational material, providing infrastructure or organising other development programs, and supporting local community events, such as Ramadan celebrations in Indonesia. The activities generally take two forms. The first are information events, which are about providing or sharing specific information. For example, one mining company held regular meetings with communities in their area to

share information about the company's blasting plans[68] (Mining representative. Meeting 35, 22 March 2011). This can be very important, as one of the main criticisms of companies and governments from communities is that they fail to provide enough information, which leaves communities feeling marginalised (Community representative. Meeting 40, 16 June 2011). The other types of activities are designed to build relationships, for example, through infrastructure projects or employment or livelihood programs. Legitimating activities were not directed at communities. Company respondents described the need to 'keep the politicians on-side' by providing them with services, or bribes (Mining representative. Meeting 35, 22 March 2011), highlighting the importance of maintaining good relationships with the other actors, particularly those who have control over your operations.

Whilst many companies and NGOs engage in these types of activities, they were of course not always successful. Building relationships is difficult, and many of these legitimating activities did not always contribute to legitimacy. One challenge to building legitimacy, according to company respondents, was the lack of motivation of communities themselves. For example, one respondent explained that the community expected their company to build a village school, but the community were unwilling to work to maintain it so the project quickly deteriorated (Agriculture company representative. Meeting 58, 11 August 2011). More generally, the lack of education and capacity of communities was sometimes seen as a barrier to building this support. This highlights how complex a task building legitimacy can be, as wider governance factors can impact upon the success of these activities. Legitimating activities are nonetheless an important part of how actors seek to influence the negotiation over access to resources, and the distribution of benefits from resource extraction.

In addition to the legitimacy that comes from activities such as community development programs, there is some legitimacy associated with legality. That is, legal activities have

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[68] These were schedules of when the mine would be setting off minor explosives to get access to the minerals. In this mine, there were many communities living within the concession area, so the company organised regular meeting to share the mine's blasting plans for safety reasons.

some legitimacy due to the fact that they are supported by the state. This legitimacy was evident from the way respondents talked about the importance of compliance that I described earlier. For example in PNG, respondents from companies described the importance of going through the legal procedures to get licenses and to ensure that they are able to export and sell their products overseas. Even the appearance of legality can provide legitimacy to activities; a point considered in the section on a semblance of legality. Whether legality provides legitimacy (and from whose eyes) depends on a variety of factors. Factors such as perceived poor quality of regulations and widespread corruption, which meant that the public distrusted legal activities, decreased the legitimacy provided by legality. Whether the legal activity breached local norms is another factor. For example, in PNG, regardless of whether a company has a legal license, if landowners perceived their rights were not being respected, the company's activities did not have legitimacy. Indeed, there have been many cases where such conditions— legal contract but operations which are seen to breach local norms— has led to landowners blockading or otherwise interfering with company operations. These conditions highlight how under different conditions legality may provide sufficient legitimacy for companies' operations, but in other conditions, wider legitimacy must also be gained.

A key aspect of most legitimating activities was about balancing support for a program without raising expectations beyond those that could be achieved. That is, the ability to effectively manage expectations was vital to build support and ensure the long-term legitimacy of the project. A case of an NGO-run peat-land and orang-utan conservation project in Kalimantan, where expectations were not managed well, provides a good example of this. Respondents from the NGO explained how most of the staff were technical specialists and their inexperience in dealing with communities meant that they raised expectations too high. Being unable to meet those expectations, they had to cancel the project. The failure to manage expectations was particularly clear in the early stages of socialisation when the NGO staff explained the entire budget of the project, which was at

the time several billion rupiah,[69] and explained that the project was in part funded by a multi-national oil and gas company. The failure to explain the situation led to high expectations that the money would just be handed out to the community, and that mining companies would be coming to develop the area (NGO representative. Meeting 8, November 2010). The NGO project collapsed but, even several years later, the communities in the area described the trauma associated with the activities of the NGO and the un-met expectations. Another conservation NGO that tried to establish a project in the area also had trouble building legitimacy because 'the community didn't want to believe anymore' (NGO representative. Meeting 32, 18 March 2011). This demonstrates how the failure to manage expectations can affect the legitimacy of projects.

Companies and government officials also described the need to manage (often reduce) expectations to maintain legitimacy. In Indonesia, company and government respondents described the need to try to limit the expectations of communities. One company involved in mining exploration in Indonesia explained that their early socialisation was limited to providing some information about the project and to identify traditional customary (*adat)* lands that could not be drilled. However they faced challenges meeting with communities who had high expectations that the company would provide a huge amount of local employment. The company representative explained that they had to be very careful and refused to commit to particular targets for local employment or infrastructure as a means to reduce expectations (Meeting 51, 14 July, 2011). This was particularly the case in remote areas where there were few opportunities for development. One community in such a remote area was told by the government officials that 'if any investor wants to come here, just don't reject them' (Community representative. Meeting 11, 12 July 2011), which implicitly worked to limit the expectations of communities. Government officials involved in REDD+ socialisation in PNG also described how 'we have to tread carefully here in PNG because what we say to the landowners, we can't raise their expectations. So we in the Forest Authority have helped with the people for over 60 years, regarding the

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[69] The average exchange rate in 2011 was 1AUD = 8994 Indonesian rupiah (see http://aud.fx-exchange.com/idr/exchange-rates-history.html).

timber operations. We are careful in what we say to the people, not to raise their expectations. Because then you have to deliver, and if you don't, they don't invite you anymore. So that is the way, and we have learnt from experience over the last 60 years' (Forestry officials. Meeting 6, 12 May 2011). These examples show how companies and government sought to distribute information in a way that carefully managed expectations. Importantly, managing expectations was necessary because the activities of the company and government were held to account for meeting these expectations. High expectations that were not met, or could not be met, would result in a lack of legitimacy.

Finally, whilst these strategies were described as important to build legitimacy for activities, it does not mean that legitimating activities were themselves legitimate. In both countries, building legitimacy sometimes involved activities such as bribery and fraud. In PNG, gaining landowners' support is key to the legitimacy of any development activity. Many reports and respondents described the sometimes-dubious activities by companies to gain this support, for example paying for travel to Port Moresby for village heads (Government respondent, Meeting 14, 25 May 2011). And these kinds of practices have been happening for decades. Advising a representative from the UN in the late 1990s, on the issue of gaining landowners' support, a forestry official described the conditions at the time '... the logging companies operate with pretty open rules. They provide money, booze, dancing girls to the landowner heads. So they just sign...' (Meeting 5, 9 May 2011). On the other side, community groups have been accused of abusing companies' legitimating activities. For example, companies have described how communities formed fictional land co-ops in an effort to attract funds from the company (Mining company representative. Meeting 35, 22 March, 2011). The variety of different strategies had different outcomes and different rates of success. However, it is clear that successful legitimating strategies were important determinants of how the negotiation process proceeded, and ultimately, how that impacted upon forests.

5.3.3 Controlling strategies

Controlling strategies refers to different activities that actors engaged in to control the process of negotiation. Legitimating activities are one aspect of this, in that by building

legitimacy actors sought to control a greater share of decision-making. Other activities included are a broader set of activities that different respondents described. These controlling strategies include two processes. The first controlling strategy is managing information—collecting, manipulating and distributing it. The second is what I refer to as positioning, which involves positioning allies into key decision-making roles. Controlling strategies are therefore not just about individual decisions regarding resource use, but can be part of a longer-term strategy to control the negotiation process.

Managing the information

The first controlling strategy that emerged from the data was the ways in which actors sought to manage information. Respondents described several dimensions of managing information and how this was used to manipulate and control the negotiation process. The different dimensions included the collection, the distribution and the manipulation of information. The strategies that actors engaged in to collect, manipulate and distribute information was a key part of the governance process, particularly in relation to legitimating activities and affecting how actors sought to influence others' priorities. For example, sharing information about the potential benefits of conservation programs was seen as important to change communities' priorities. The different activities of actors to collect, manipulate and distribute information can therefore have important implications for understanding what activities are allowed to happen in the forests.

Whilst of course there were important strategies involved in collecting information, which I return to shortly, it was the failure to share information that was the most commonly reported strategy to control the process of negotiation. Government departments, and officials in both PNG and Indonesia, were renowned for holding on to important information. A respondent from a forestry-related NGO in Indonesia explained how they had made a request under freedom of information laws to the forestry department for the 2009 data on forest cover. They received the government's data through other channels two years before receiving a response from the Ministry—who explained that they were unable to share the data because it was still being compiled (Meeting 58, 28 September 2011). The NGO respondent explained that this was because the government

did not want to share information that might be used to make the government look bad. This highlights how failing to distribute information can affect the negotiation process. For example, failing to distribute information about the location of different concessions can reduce the risks for companies who illegally operate outside their concession areas, and thereby encourage business to prioritise illegal activities. Another reason that government departments seek to hold on to information is because collecting information can be costly. For example, a respondent from the Forest Authority in PNG explained that they did not want to share some information with other government departments because it costs a lot to them to collect it, and it is not clear why other departments should benefit (Meeting 15, 25 May 2011). This shows that failing to distribute information is not always a strategy by government to control the negotiation process, but managing information—collecting and selectively distributing it—can be important strategies for some actors who seek to control the process of negotiation.

Related to the issue of managing expectations is the manipulation of information to suit specific ends. That is, the process of managing expectations involved in a negotiation. But what is evident from the responses of different actors was the important way in which others sought to manipulate information to suit their own agenda. This was often an allegation by companies against the practices of NGOs. In one case an RSPO-certified oil palm company alleged that NGOs blackmailed them. They described how a local NGO took photos of a dead fish and threatened the company to publish the pictures unless the company paid the NGO a sum of money (Industry representative, 27 August, 2011). This was an extreme example; however, NGOs have often been criticised for their misrepresentation of information by pro-industry writers (Curtin, 2006; ITS Global, 2006b). As one industry representative explained, 'I could go out to any timber area tomorrow and find half a dozen upset land owners and take photos and stick them all over and say 'look at the exploited people'. But you don't see the photo of the other 5000 who want to kill these six because they are stopping the project' (Meeting 2, 3 May 2011). This demonstrates how different actors carefully collect and distribute information as a strategy to influence the negotiation over how activities in the forest proceed.

Positioning

Positioning is aimed at influencing the negotiation involving if and how specific regulations are implemented. Positioning involved strategies such as building dependent relationships with those already in power—for example, funding election campaigns, or manipulating recruitment processes in the public service. Positioning between the elected official and the bureaucracy is particularly important. Respondents in both countries—from the government and the non-government sector—described the way in which elected officials sought to gain control over decision-making through the strategic employment of allies to decision-making roles. The practice of positioning is therefore a response to reforms that have sought to limit the discretion of elected officials. In Indonesia, NGOs and other researchers described how the heads of key departments often changed following elections of district heads. In one district, the heads of key departments were all family members of the head of the district. In PNG, there have also been efforts by elected officials, specifically Ministers, to position 'friends' as managing director (MD) of the Forest Authority. That is, the MD is elected through a process of short-listing and is appointed by the National Executive Committee, which means that the Minister of Forests, technically, should have reduced influence over the process.[70] However, the Minister does have authority to determine the status of the MD, and some Ministers have used it to keep successive MDs as 'acting' MDs, as a means to keep some level of influence over the Forest Authority's activities (Private research institute. Meeting 5, 9 May 2011). I discuss these strategies in greater detail in the next chapter, as positioning often involves corrupt exchanges. It is important here, however, to understand how this impacts upon governance. Specifically, positioning is a strategy for those with little direct authority over decision-making to gain more control to influence the negotiation over if and how regulations are implemented.

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[70] In one case in 2002, the Minister of Forests of the time illegally directly appointed a managing director of the then national forest service, which resulted in a stand-off between the Minister and the Board, who had appointed their own acting managing director.

5.3.4 Semblance of legality

A semblance of legality, which here refers to the ability to cover illegal activities with the appearance of legality, is important for understanding when and how illegal activities can occur. It is therefore central to the process of governance described by respondents. The process for getting a semblance of legality interacts with the other processes described in this grounded theory. For example, being able to appear to be legal makes illegality less risky and can therefore influence priorities. A semblance of legality also provides a certain degree of legitimacy for illegal activities. Some of the systems that support this practice, such as use of fraudulent documents, are developed further in the next chapter. However, there are two aspects to this idea of a semblance of legality that are relevant here. Firstly, identifying what this concept means and how it was evident in the data. Secondly, a description of the activities involved and how they influence the process of forest governance.

There were many different types of illegal activities that actors sought to cover with a semblance of legality, and often the particular type of cover was dependent on the type of illegal activities. Firstly, many companies were operating with some license, enough to be mostly legal, whilst ignoring other regulations. In Indonesia this was easier due to the ambiguity over the land-use plan (see Chapter 3). Other illegal activities such as harvesting beyond the concession area could be covered through timber laundering. In the past, timber laundering was common in Indonesia and involved illegally harvested timber being effectively legalised by being transported and marketed as timber from a legal concession (Chapter 3). A similar, and contemporary, version of timber laundering was a practice of plantation companies in Indonesia that cleared and planted areas in excess of their legal concession. The harvests from these illegal areas were legalised through the main concession area. Respondents from government and NGOs in Indonesia described this as 'usual practice' with companies clearing 'often up to 2000 ha' beyond their concessions (NGO. Meeting 24, 29 November 2011). This shows that the type of illegal activity, and the type of cover required is dependent on the nature of the industry itself, the content of regulations and the activities of those monitoring.

One of the key elements of a semblance of legality is the use of fraudulent paperwork. The different types of illegal activities described above, to varying degrees, relied on the creation and use of fraudulent paperwork, such as fraudulent licenses or fraudulent monitoring reports. There are many examples of illegal activities being covered by fraudulent paperwork. For example, in PNG, published reports and respondents in my research have described how monitors in the field approved timber that had been harvested in breach of the code of conduct (Department of National Planning and Monitoring, 2004b); licenses had been awarded for areas that illegally overlapped with other land-titles (Industry representative. PNG Meeting 2, 3 May 2011); and licenses had been awarded in Port Moresby offices despite failing to incorporate the interests of landowners (Meeting 12, 20 May 2011). Another widespread and recent case of this is evident from the allegations over the Special Agriculture and Business Leases (SABLs). One forestry official explained that even though the intended purpose of SABL was to cover agricultural projects, applications for these licenses mirrored applications for timber-harvesting licenses, rather than a real agricultural project which would require specific road systems and planning for mills (Forestry officials. PNG Meeting 19, 8 February, 2012). This, he argued, supported the claim that the SABL were being awarded to cover illegal timber operations. In Indonesia also, licenses were illegally awarded based on fraudulent documents. Respondents from one NGO in Indonesia showed evidence of companies being awarded licenses based on environmental impact assessments (EIA) that had been copied from other projects (NGO representative. Meeting 2, 4 Sept 2011). These examples are just some of the many variations of fraudulent documents that exist in Indonesia and PNG and point to how ubiquitous this practice of a semblance of legality is.

There are many reasons why this practice of a semblance of legality is so prevalent. Some of these have already been identified in this grounded theory, such as poor regulations. However, concern about poor regulations interacts with concern over risks—such as legal sanction—from being illegal. That is, a company may seek a semblance of legality to

protect itself from costs associated with legal punishment[71] or damage to its reputation. As I described above, being legal (or the appearance of it) was a clear priority for many actors. Company and government respondents discussed the importance of being legal and the negative impacts from allegations of illegality. For companies trading internationally, allegations that companies are operating illegally can affect international market access.[72] In PNG the lack of monitoring by government officials was a key concern for the industry, 'because the way the world has gone, you have got to be independently certified and compliant and all the rest of it' (Industry representative. Meeting 2, 3 May 2011). Being able to cover illegal activities with a semblance of legality therefore protects companies from potential loss of reputation, loss of market access and legal punishment. The practice of covering illegal activities with legal paperwork is equally important to protect the reputations of the relevant government agents. This can include both individual and organisational reputations. That is, government agents also risk their reputations for condoning some illegal activities. Promoting a semblance of legality reduces their risks of exposure. This highlights the importance of understanding the priorities of government agents to understand if and how different regulations are implemented. In addition, this shows that semblance of legality benefits the two key actors, which in part explains the prevalence of this practice and the importance of understanding this process to predict the outcomes from the governance process.

A semblance of legality is not always necessary or sufficient. In some contexts, a semblance of legality may not be necessary because illegal activities are not being monitored. Alternatively, a semblance of legality may be insufficient because actors, other than those involved in the semblance of legality, are monitoring activities and reporting actual compliance. For example, NGOs' campaigns that monitor on-the-ground activities of companies reduce those companies' ability to cover any breaches with fraudulent

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[71] This depends on factors such as the fraudulent documents being exposed by government agents other than those who provided the fraudulent documents, and the willingness and capacity for those government agents to prosecute such crimes.

[72] For example, Greenpeace's campaign against Indonesian oil palm company Sinar Mas, which led to Nestles cancelling their contract with Sinar Mas (Tabacek, 2010).

paperwork. The presence of external monitors seems particularly important to preventing a semblance of legality. This highlights the importance of the interaction of governance factors in order to understand and predict what the outcomes (such as illegal or legal activities) may be.

The three key processes described above, being prioritising, legitimating activities and controlling strategies, and the issue of semblance of legality, all interact to determine if and how regulations are implemented. How different actors seek to engage in each of the three processes and the different factors that affect their interests therefore constitutes forest governance that ultimately affects how forest resources are used (Chapter 7). Furthermore, the specific interaction of these factors is greatly influenced by the local conditions, particularly the match between local conditions and the regulations. Therefore, this grounded theory finds that the specific combination of these three processes determines if and how different regulations are enforced in different contexts.

5.4 Discussion

In this section I analyse the results of my grounded theory in order to better relate this grounded theory to the broader literature. To do so, I focus on three streams of literature that are most relevant to understanding the findings from this grounded theory: i) compliance theory, ii) legitimacy theory, and iii) theories about information and accountability. The implications of this grounded theory for current understanding about poor governance in the forests will be addressed at the end of the section.

There has been a substantial amount of research into questions about how and when companies may comply with regulations in general (Amariei, 2005; Blaser, 2010; Contreras-Hermosilla, 2002; Etienne, 2011; Gunningham et al., 2005; Peterson and Diss-Torrance, 2012; Ramcilovic-Suominen and Hansen, 2012), and environmental regulations specifically (Burby and Paterson, 1993; Decker and Pope, 2005; Gunningham et al., 2005). This body of literature can be divided into two broad groups. The first comes from the perspective of neo-classical economics, and the second focuses on the social dimension of compliance.

The neo-classical perspective predicts that companies will comply with regulations when the benefit of non-compliance is outweighed by the risk of being caught and the relative severity of the punishment (Becker, 1968). According to this perspective, compliance is strengthened by frequent monitoring and a sufficient deterrent or punishment for any breaches, ideas which are widespread in writings about illegal logging (Jachmann, 2008; Kaimowitz, 2003; Richards et al., 2003; World Bank, 2006a). The prevalence of this rational-choice perspective is still evident in some of the discussions about the implementation of REDD+ programs, where calls to strengthen law enforcement and increase monitoring are common (Goncalves et al., 2012; Luttrell et al., 2011).

Even though there is wide support for the neo-classical explanation of compliance, the logic behind it has nonetheless been challenged by the fact that many studies have demonstrated levels of compliance in excess of that predicted by the level of monitoring or enforcement. Harrington (1988) was one of the earlier researchers attempting to explain this puzzle. Harrington modelled compliance in a game where enforcement was targeted towards groups of firms seen as 'non-cooperative' at the beginning of the game, and less enforcement was directed to firms seen as 'cooperative'. The results showed that firms have an interest to exceed compliance in the early stages in order to be placed in the 'cooperative' group, thereby avoiding future enforcement activities (Harrington, 1988). Further research has identified other factors such as compliance behaviour of other companies (Decker and Pope, 2005), or the characteristics of the firm itself, such as size (Gray and Shadbegian, 2005). The diversity of factors identified in the literature show that understanding formal enforcement practices is insufficient to be able to predict when and how companies may comply with regulations.

The second body of research into compliance focused on the social dimension of business and government activity. Different factors, such as corporate governance systems, for example leadership systems, and social norms have been identified as key determinants of compliance (or non-compliance) (for example Gunningham et al., 2005; May, 2005; Ramcilovic-Suominen and Hansen, 2012). For example, May (2005) examined the relative significance of fear, associated with being found to violate regulatory requirements, and a sense of civic duty to comply across three areas: i) farmers in Denmark complying with

agro-environmental regulations, ii) residential contractors in Washington complying with building-code provisions, and iii) marine facilities in Washington and California complying with water pollution regulations. This detailed investigation found that whilst regulatory inspections did affect compliance levels, other factors included how different actors framed the regulatory system, the different societal norms,[73] and the perceived consistency of law enforcement against competitor companies (May, 2005). The diverse body of research on compliance has identified many different dimensions of why companies may (or may not) comply with regulations, such as whether other companies were complying and the level of punishment for non-compliance, with similarities and implications for understanding the results of the grounded theory of forest governance.

The process of prioritisation in the grounded theory of forest governance demonstrated how features of compliance literature operate in the complex context of forest governance in Indonesia and PNG. For example, the fact that compliance (or at least the appearance of compliance) was seen as vital to protect companies from future prosecution supports the rational-choice explanation's view of the compliance literature. In practice, as demonstrated by my findings, this rational decision-making is dynamic, as companies could change their practices dependent on the changing risks of being caught and punished. For example, being legal was seen as more of a priority when companies' activities were being monitored by government officials or NGOs, or when particular illegal practices were exposed and politically condemned. There are also aspects of this grounded theory that provide support for the social dimensions of compliance. In both countries these norms tended to support non-compliance. This was evident in the social narratives about the poor quality of regulations and the expectation that enforcement would not be strict. It was expected and accepted that there was a process of negotiation over whether and how regulations would be implemented. The grounded theory therefore demonstrates how the social norms and rational-choice considerations can

[73] In at least one of these cases, the authors argue that extensive participation of different actors in forming the regulations contributed to norms of compliance and a stronger sense of civic duty.

interact to affect the compliance decisions of companies in the forests of Indonesia and PNG.

As well as demonstrating how some of these features of compliance operate in the forest sector of Indonesia and PNG, the results of my research also draws attention to the gaps in the literature on compliance. This is a consequence of the fact that research on compliance has typically drawn on data from developed countries. These are places where the regulations are relatively clear and the legitimacy of the government is more or less stable: the United States, Canada and Denmark for example (see Harrington, 1988; May, 2005; Potoski and Prakash, 2004). There has been less (quantitative) examination of compliance in developing countries (some exceptions include Hansen, 2011; Hauck, 2008). This is a problematic gap for understanding the results of my research because, by basing studies in developed countries, there has been less consideration of the effect of the perceived poor quality of regulations on compliance. My research, however, has shown that the quality of regulations can be critical to the issue of compliance in different contexts. The research from developing countries that is available has demonstrated how social norms can support non-compliance, and that the perceived quality of regulations can be important (Hansen, 2011; Hauck, 2008; Smith et al., 2006). For example, in a study of non-compliance with new forestry regulation in Peru, Smith and colleagues (2006) argued that decades of non-compliance with the previous regulation had contributed to a norm of non-compliance, and that this norm was not affected by introducing new regulations. The authors also describe other factors that supported the norm of non-compliance, including a history of corruption and the perception that the government was anti-timber industry. Their research highlights the potential importance of long-term perceptions regarding the quality and legitimacy of regulations, as this long-term quality will have effects on norms associated with compliance, an argument that can also be made from the findings of the present research. That is, it is clear that historical conditions, such as changes to the land-use plan, can have long-term implications for levels and norms of compliance.

Another area where the findings from this grounded theory provide additional considerations for the compliance literature relates to the role of government agents in

either enforcing regulations or condoning illegal activities. In this grounded theory, one of the key determinants of compliance are the different priorities of government agents and how they affect decisions about if and how to enforce regulations. The compliance literature does identify the fact that monitoring may be strategic from government agents. For example, some studies have assumed that government agents target monitoring activities towards firms that, in the past, have not complied with regulations (Harrington, 1988). The wide literature on illegal logging has also identified how illegal activities are often condoned, supported or even promoted by government agents (Casson and Obidzinski, 2007; Contreras-Hermosilla, 2002; Richards et al., 2003; Smith et al., 2003a; Tacconi, 2007c). Despite the acknowledgement that government agents may be selective about whether and how they enforce regulations, with implications for understanding compliance by companies, the motivations of government have been relatively under-studied in the compliance literature.

Firstly, my research has identified different priorities of government agents tasked with enforcing regulations and how these may affect their decisions to enforce regulations or condone illegal activities. For example, one priority was promoting investment. Decisions about whether to enforce regulations were, in part, dependent on the content of those regulations and whether they were seen to help or hinder government agents' ability to promote investment. Other considerations included the potential effects of the decision on the reputation of government officials and agencies, and how the decision to enforce regulations might affect the opportunities for corrupt payments. It is clear from these priorities that there are many factors that affect whether and how government agents may choose to enforce regulations or condone illegal activities. Ultimately, compliance will be dependent on the negotiation of priorities between companies and government agents. The results from this grounded theory then complement compliance theory by identifying the complex motivations of government agents that affect if and how they choose to enforce regulations.

Secondly, despite there being widespread concern with the issue of rule of law and government effectiveness in governance research (Kaufmann et al., 2012b; Nanda, 2006; World Bank, 2006a), there have been few attempts to incorporate compliance theory

within the governance literature. In the governance literature focused on illegal forest activities, there remains a strong focus on the rational-choice dimension of compliance. This is evident in the common call to strengthen law enforcement and monitoring as a means to reduce illegal forest activities (for example Friesen, 2003; World Bank, 2006b). Some exceptions include the corporate governance literature, where the quality of corporate governance is reflected in the level of compliance (Crittenden and Crittenden, 2012). Notwithstanding these exceptions, the focus on rational-choice explanations remains prevalent. This is despite the fact that the broader compliance literature demonstrates complex motivations for why companies (or individuals) may comply with regulations. And these explanations provided insight into why illegal activities occur beyond explanations that rely solely on rational-choice models. In addition, my research highlights the complex motivations of government agents tasked with enforcing regulations, and how these motivations are affected by the broader governance context. Further attention to the integration of compliance theory and prioritisation processes into governance research in different contexts seems to be important for future governance research.

Legitimacy

The second aspect of this grounded theory is the issue of legitimacy and legitimating strategies. Legitimacy formed a central concept in this grounded theory as many respondents described different activities, such as socialisation and the payment of bribes, which worked to build legitimacy for their interests. Often these legitimating activities were directed at those who had some form of authority over the activities. This included formal authority and informal authority. For example, companies worked to build legitimacy with government agents who had the formal authority to shut down business operations. They also work to build legitimacy with actors who had informal authority, such as landowners in PNG.[74] Legitimacy was also an important concept in understanding

[74] There is formal authority of landowners, but I refer here to the informal authorities that exist in addition to the formal, legal authority of landowners. For example, the informal authority that emerges when landowner groups are in dispute.

the process of semblance of legality. These points highlight some of the dimensions of legitimacy that were identified in my research.

The concept of legitimacy itself emerged from political scientists, including Weber, who, as early as the 1920s, described legitimacy as the citizens' acceptance of the use of power (from Hacek et al., 2013). Legitimacy was seen as one dimension of compliance and was therefore focused on activities of the state (Bernstein, 2005). The normative dimension of legitimacy was concerned not only with the capacity to enforce laws, but also the right to do so. In relation to governance, with the associated fragmentation of authority, the concept of legitimacy has taken on a broader meaning to include the legitimacy of actors beyond the state. For example, research has focused on legitimacy in global environmental governance (Bernstein, 2005), and legitimacy of the non-state actors and non-government institutions such as industry-led roundtables (Cashore, 2002; Hafner, 1998). Applying the legitimacy concept to these non-state actors is seen as a form of power (Bernstein, 2005), and this power has important implications for understanding how governance occurs. Indeed, much of the literature on good governance, such as that from the World Bank, focuses on issues such as voice and accountability as vital to build legitimacy for different activities (Biermann and Gupta, 2011; Kaufmann et al., 2009).

Beyond understanding the role of legitimacy, research has identified many different types of legitimacy. One of the most common distinctions involves three different types of legitimacy, being pragmatic, moral and cognitive legitimacy (Suchman, 1995). Pragmatic legitimacy refers to legitimacy derived from self-interest. Moral legitimacy is guided by value decisions about 'the right thing to do'. Cognitive legitimacy is achieved when there is a cognitive evaluation that something is *understandable*, or to do something otherwise is *unthinkable* (Cashore, 2002). Different types of legitimacy have also been categorised by whether legitimacy is served by the process or outcome. That is, legitimacy refers to the procedural characteristics of a rule-setting process—often associated with participation. Output legitimacy refers to the acceptance of rules because of their (perceived) ability to solve problems (from Costas-Pérez et al., 2012). This is not the same as actually solving the problems; rather it is aligned to cognitive legitimacy, in that output legitimacy refers to the acceptance of rules because they are understandable solutions. Whilst these

categories offer important ways to understand the different types of legitimacy, they provide little information about what types of legitimacy may be relevant to forest governance in different contexts.

That is, Even though there has been a lot of research into legitimacy, and it has been shown to be important in governing resources (for example Biermann and Gupta, 2011; Mascarenhas and Scarce, 2004), there has been less research into how different actors may seek to gain legitimacy and what this means for forest governance. An exception is Schouten and Glasbergen's study of the roundtable on sustainable palm oil (RSPO) (2011) . Schouten and Glasbergen analysed how the RSPO sought to build legal, moral and consent/acceptance legitimacy, finding that factors such as participatory processes, negotiation of key principles, and the involvement of diverse actors all contributed to the emergence of some legitimacy. Importantly, they described how the RSPO sought to build moral justification: 'there was a need to create basic understanding and common belief related to what they are trying to govern' (Schouten and Glasbergen, 2011, p. 1892). Some of the different types of legitimacy were evident in the strategies adopted by companies and other actors identified in my research. For example, the efforts by companies to engage with local communities were a strategy to build input legitimacy. Beyond these strategies, what is clear from this grounded theory is the importance of balancing legality and a semblance of legality to building and maintaining legitimacy.

One of the main sources of legitimacy identified in this research is the legitimacy of the state. There are two components to this. Firstly this has to do with the legitimacy of the state itself, which I return to later in this section. Secondly and relatedly, is the role of the state in legitimising activities by deeming them legal. That is, 'it is the state that defines what is legal and illegal and invests that distinction with legitimacy' (Aspinall and van Klinken, 2011a:2). The legitimacy associated with legality is evident in many studies on forest governance which focus on the importance of rule of law (Contreras-Hermosilla, 2007; World Bank, 2006b).

The legitimacy of legal activities is also evident in the fact that allegations of illegality are a key tool used by NGOs to challenge the legitimacy of companies and governments (for

example EIA and CIP, 2005; EIA/Telapak, 2012; Raitzer, 2010; Urrunaga et al., 2012). The issue of semblance of legality, which emerged from this data, has implications for understanding the relationship between legality and legitimacy in the process of governance. Specifically, it suggests that while there is legitimacy associated with being legal, in the context of corruption and perceived poor quality regulations, the need to be legal is less important, but the need to appear to be legal remains. These findings then demonstrate how legitimacy and legality work in practice and particularly how the state also works to invest illegal activities with legitimacy.

That is, the relationship between legitimacy and legality can be extended to consider how illegal activities may have legitimacy and so be prioritised. In the research for this thesis, the concept of development was given particular legitimacy, and activities that purported to provide development were often prioritised. Legality was sometimes seen as an unnecessary barrier to investment and development, which justified some illegal activities. This is not unique to my research: development is an obvious priority in much of the research on governance and is often used as an explanation for illegal activities. For example, in discussing the (often) illegal permits awarded by district heads following the fall of Suharto and the decentralisation of government in Indonesia, McCarthy (2006) described how district heads gained significant legitimacy from their ability to attract and encourage investment. The findings presented in this chapter then help to demonstrate how legitimacy is built and some potential interactions between legitimacy and compliance theories—particularly how legitimacy strategies can support and justify patterns of non-compliance or non-enforcement.

This is not to say that in all cases illegal activities were considered legitimate by different actors, as there are other potential explanations for why respondents provided the answers they did. For example, many answers provided during interviews may have been attempts by respondents to provide socially acceptable answers, which has been a concern identified in other research on compliance (for example May, 2005). Responses about the legitimacy of illegal activities could be understood as an attempt to provide a social justification for decisions to condone illegal activities when in fact the decisions were made for private reasons. Other responses reflected a type of social narrative used

to explain and justify why they did what they did. For example, a common narrative associated with controlling strategies was the lack of capacity or education of communities as an explanation or excuse for failing to appropriately consult with communities. These factors influence the analysis of respondents' answers and draw attention to the complex and multifaceted nature of issues to do with legitimacy, compliance and power in managing natural resources.

5.5.1 Controlling strategies and accountability

The controlling strategies identified in this grounded theory are the final area to be analysed before turning to the question of poor governance. In the literature, the issue of control is also tied to systems of accountability. That is, control over resources is determined by who makes decisions, and whom they are accountable to. Accountability is a key concern in the governance literature, and accountability reforms—for example, through decentralisation, which has been promoted globally to improve governance (Coleman and Fleischman, 2012; Ribot et al., 2006). One key aspect of much of the literature on accountability is the importance of clear distribution of information or transparency, which is widely seen as a key component of accountability (Blaikie, 2006; Lockwood et al., 2010). The results of this grounded theory also support the argument about the importance of information and transparency in holding others to account for their actions. But one of the key findings of this research highlights the importance of managing information to develop or restrain the expectations of others. The ability to collect and distribute information in a way that minimises expectations of others was a key strategy to gain control over resources and to influence the process of prioritisation. This is important for accountability, because these expectations also become benchmarks by which the success and legitimacy of activities may be measured. That is, actors are also held to account by whether their actions meet the expectations of others. Understanding how actors seek to develop expectations in others, and how these expectations are used to hold activities to account, is important for understanding the relationship between informal accountability and the process of forest governance.

The findings of the grounded theory and the analysis presented here also point to a broader debate in the literature on governance. As I identified in the introduction to this chapter, one of the contentious aspects in definitions of governance is the relative influence of the government. At one end of the continuum, the World Bank's conception of governance has government as the central actor. This perspective is also evident in some of the academic literature, where governance is defined as the way in which government exercises its functions (for example Smith et al., 2006, p. 467). On the other hand, governance is also understood to be the combination of structures and processes that are involved in the coordination of interdependent needs and interests in the absence of a unifying political authority (Krahmann, 2003a, p. 11). Indeed, a lot of the focus of governance research has been on the role of wider actors and non-government organisations, such as markets as key governance processes affecting resource use (for example Brannstrom et al., 2012; Cashore, 2002). These conflicting ideas, about what governance is, highlight a complex role for government in governance.

The evidence from this theory supports aspects of both perspectives regarding the role of government in governance, and points to a multifaceted relationship between the state more broadly and governance. Firstly, the fact that regulations and the need for legality, or a semblance of legality, are core to the way in which governance happens supports the idea of the government as central to the process of governance. Secondly, the legitimacy and authority of the state is, in part, a result of the governance process. Even parts of the governance process that may be seen as poor governance, such as the semblance of legality, can work to support the authority of the state by protecting the reputation of government officials and the state more broadly. A semblance of legality can of course also damage the reputation and legitimacy of the state, highlighting the complex impacts of the governance process and state authority. Thirdly, the fact that legality is often insufficient to legitimise activities, and indeed that the regulations are not strictly enforced and their implementation is negotiated, reflects the notion of fragmented authority and negotiated interests. These features are central to the more academic conception of governance where there is less of a central focus on the activity of government. These apparently competing ideas—government as central or peripheral to

governance—suggests the need for a more nuanced understanding of the role of government in governance.

5.5.2 Poor governance

These findings have implications for our understanding of poor governance of forests. Conceptions of poor governance often focus on the presence or absence of specific governance features. For example, according to the Worldwide Governance Indicators, the presence of illegal activities, which demonstrates a lack of rule of law, is indicative of poor governance. Indeed, the definition of poor governance often used by the World Bank lists the absence of features of good governance, such as the lack of transparency, the lack of accountability and the lack of rule of law (World Bank, 2009; WRI, n.d.) . And no doubt there are many negative impacts from the absence of these features, evident in the huge body of literature addressing issues such as illegal logging (Smith et al., 2003a; Tacconi, 2007b), and accountability and participation (Xu and Ribot, 2004). Despite this body of research however, the focus on the presence or absences of specific outcomes fails to address the broader question of what constitutes poor governance as a whole.

Whilst this thesis does not attempt to answer such question, the results do challenge some common features of poor governance, particularly rule of law. The findings of this thesis also challenge the focus on specific outcomes as indicators of poor governance. This is because the core character of the governance process that emerged from the data is the negotiation over if and how regulations are implemented. This means that, for example, the occurrence of illegal activities does not necessarily reflect poor governance. It may be the result of legitimate negotiation and participation of diverse actors responding to local needs and poor regulations. Instead, the results suggest that poor governance is best measured by qualities of the process of negotiation, rather than any particular outcome.

5.5 Conclusion

This chapter presented the results and analysis of the grounded theory of forest governance. The core activity of governance that emerged from the data was a

negotiation over if and how regulations were implemented under different conditions. The three processes that emerged to influence this negotiation involved prioritising, legitimating activities, and strategies of control. These processes were then analysed drawing on the literatures of governance, compliance theory, and legitimacy theory. One key finding from this analysis is the identification of the importance of different incentives for government agents to enforce laws, and how this affected overall compliance. This idea of government agents negotiating and selectively enforcing laws has, so far, not been well-developed in the broader compliance literature. Furthermore, in contrast to the literature that identifies particular outcomes (such as illegality) as a feature of poor governance, the results of this grounded theory focus instead on the process of negotiation itself to assess the quality of governance. That is, poor governance refers to particular qualities of the process of prioritising, legitimating, and controlling resources, rather than any specific outcomes (for example, the occurrence of illegal activities). The topic of poor governance and its impact on forests will be discussed further in Chapters 7 and 8, when I address the overall research question of this thesis, which relates to the impacts of poor governance. The next chapter presents the results of the grounded theory of corruption, needed to inform the analysis of those impacts.

Chapter 6

Regulatory quality, mutual dependency and political interference: A grounded theory of forestry corruption

6.1 Introduction

Corruption has been a well-documented feature of the forest sector of many countries (Global Witness, 2007; Richards et al., 2003; Urrunaga et al., 2012), including Papua New Guinea (PNG) and Indonesia (CELCoR and ACF, 2006; Dauvergne, 1994; Laurance et al., 2011; Smith et al., 2003a). Corruption—commonly defined as 'the misuse of entrusted power for private gain' (Pope, 1996, p. 16)—is widely reported to be contributing to deforestation and forest degradation (Bulte et al., 2007; Dauvergne, 1994; World Bank, 2006a; WRI, 2003), and over the past several years there has been a growing concern about the implications of corruption for efforts aimed at reducing emissions from deforestation and forest degradation (REDD+) (Tacconi et al., 2009; Williams et al., 2011). Forestry-related corruption research has focused mostly on: i) how corruption facilitates illegal logging (Callister, 1999; Contreras-Hermosilla, 2001); ii) the impacts of corruption on land use change (Bulte et al., 2007; Koyuncu and Yilmaz., 2008); and iii) how corruption affects the broader political-economy of resource use (Bulte and Damania, 2008; Burgess et al., 2012; McCarthy, 2006; Ross, 2001). However, there has been less focus on how the actors themselves understand and engage in corruption (an exception includes Ufere et al., 2012) and how this relates to the broader forest governance process. It is important to address this gap with a more detailed investigation into local-level processes of corruption because understanding how corruption happens, according to those who engage in it, is necessary to understand the complex, context-specific nature of corruption in the forest sector. Ultimately, better understanding of how and why corruption occurs in the forests is necessary to understand if and how corruption may be contributing to deforestation, and what to do to reduce corruption. This chapter therefore presents the results of the grounded theory of corruption in the forests of Indonesia and Papua New Guinea (PNG).

The next section provides a background to the literature on corruption. In keeping with the principles of grounded theory, the background presented is not intended to be a complete literature review; rather, the focus is on identifying some of the key aspects of the research and thinking about corruption that are most relevant to the subsequent grounded theory. The second section presents the results of the grounded theory of forest corruption. The key process that emerged from the grounded theory of forest governance (Chapter 5) was the negotiation over if and how regulations are implemented. The grounded theory on forest corruption is then focused on how different types of corruption are involved in this negotiation over if and how regulations are implemented. Three processes emerged from the data. The first two are specifically about corruption, identifying the role of corruption in negotiating the implementation of regulations, and in building the relationships and systems associated with mutual dependency. The third involves activities associated with positioning and political interference. What is evident from these processes is that to understand corruption, it is important to consider not only the specific corrupt exchanges, but the broader systems that support and protect those exchanges. The fourth aspect of this grounded theory is referred to here as the 'associates' of corruption. These are activities that can be associated with, or confused for, corruption and include conflicts of interest and negligence. These activities highlight the difficulty of isolating corrupt exchanges from a variety of other problems associated with forest governance. The final section presents the analysis of the results of this grounded theory, focusing on issues of legality, state-society relationships and legitimacy.

6.2 Background

With some of the earliest references to corruption dating back to the 4th century B.C. (Bardhan, 1997), corruption has obviously been part of human relations and all types of governance systems for many centuries (Campos and Pradhan, 2007). Despite this history, up until the later part of the 20th century corruption was under-represented in political-economy research. This situation has changed in the past several decades, as evidenced by the growing body of literature from multiple disciplines investigating the nature, causes and consequences of corruption (Tanzi, 1998). Despite this growing body of research,

there is still considerable debate over the definition of corruption, and the causes and consequences of different corrupt exchanges.

One of the most common definitions of corruption is that developed by Transparency International (TI),[75] in which corruption is 'the misuse of entrusted power for private gain' (Pope, 1996, p. 16), with the wording 'entrusted power' having replaced 'public office' to acknowledge the role of private contracting in the provision of public services (Pope, 1996). Despite the recognition of the role of the private sector in the provision of services, as private sector CEOs also have entrusted power, corruption is still most commonly understood to involve public officials. That is, many definitions go on to explain that corruption is 'behaviour on the part of officials in the public sector, whether politicians or civil servants, in which they improperly and unlawfully enrich themselves, or those close to them, by the misuse of the power entrusted to them' (Pope, 2000, p. 2). These definitions of corruption are the most common, but there are obvious challenges to this sort of definition. Firstly, this definition relies heavily on a distinction between public and private interests, which may not be appropriate in all countries (Andvig et al., 2000; Warren, 2004). That is, different cultures may have different definitions of public and private interests, and what constitutes an abuse of such powers (Larmour, 2008).[76] As such the definition does not accurately cover different countries' experiences with corruption. Secondly, these types of definitions place corruption as primarily an act of one individual, when in practice (as will be evident below) corruption requires an exchange of some sort. Otherwise, corruption cannot be distinguished from other crimes such as embezzlement and fraud.

Beyond these definitions, much of the literature on corruption has sought to develop and understand different types of corruption, such as petty and grand corruption, state-capture and bureaucratic, political and administrative, collusive and non-collusive (Clarke, 2011; Hellman et al., 2003; Pope, 1996; Ross, 2001; Smith et al., 2003a; Sundström, 2012).

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[75] Transparency International is a leading international anti-corruption non-government organization.

[76] There have been criticisms of this culturally relativistic perspective of corruption (Pope, 2000), there are nonetheless debates about how culture may affect perspectives of what constitutes corruption (Larmour, 2008).

These different categories of corruption draw on characteristics of the corrupt exchange, such as the actors, contexts and motivation of corrupt exchanges. For example, collusive corruption refers to corruption where both parties in the exchange benefit, and non-collusive refers to situations where one party compels the other to pay a bribe, often for something that they are legally entitled to. However, whilst different categories are prevalent in the literature, and highlight many complexities of the phenomenon of corruption, there is often ambiguity in how they are applied. This is particularly a problem because these categories are used without specific explanation, leading to considerable confusion and overlaps between such categories. For example, to some, grand corruption only refers to large payments to higher political figures (Tanzi, 1998); to others, it can also include high-level bureaucratic officials (Callister, 1999)—in which case grand corruption is similar to bureaucratic corruption. To others, grand is the same as state-capture, meaning it refers to corruption that intends to influence the content of regulations (Hellman et al., 2003). Whilst no doubt, corruption is a very complex, multi-dimensional phenomenon, and as such no single definition will be universally applicable (Larmour, 2007). However, these overly-simple definitions that are so common in the literature are in many ways misleading. A result of this is that discussions about corruption—particularly in the development literature—are confined to bribery or treated in passing as an activity which 'often facilitates illegal logging' (WRI, 2003), rather than as the complex phenomenon that it actually is.

Despite the definitional challenges, research and concern about the perceived problems of corruption has been growing. In the past, corruption was largely treated as an individual 'bad apple'[77] problem; however, over the last few decades the international profile of corruption has become far more prominent, including as an academic concern (Tanzi, 1998). Part of this growing prominence was the work of several economists, particularly Rose-Ackerman (1987) and Robert Klitgaard (1988), during the 1980s. They

[77] 'Bad apple' definitions of corruption treat it as the result of the particular psychologies of the people involved. 'Bad apple' explanations of corruption remain common in response to corruption scandals, as this conception provides clear, albeit simplistic, solutions to the occurrence of corruption (Darley, 2005).

were among the first to apply rational-choice theory to corruption. In this approach, corruption is seen as an individual calculation to maximise utility. This literature also involved the acknowledgment that broader systems create the interests associated with corrupt activities, rather than just seeing corruption as the criminal behaviour of some 'bad apples'. Rose-Ackerman's (1987) seminal paper focused on the costs and benefits to different (government) agents, of bribing and being bribed, under different models of competition. She found that increased competition reduces the opportunities for corruption. In a similar fashion, Klitgaard's (1988) 'corruption equation' describes the broader systems which affect corrupt interests. Specifically, he argues that the risk of corruption is positively related to the level of monopoly control and the level of discretion in decision-making, and inversely related to the level of accountability.

Corruption = Monopoly + Discretion - Accountability (Klitgaard, 1988, p. 78).

Whilst the rational-choice view of corruption has been influential, there are nonetheless problems with this perspective. Part of this is criticism comes from the fact that actual experiences of corruption do not match the predictions inherent in the rational-choice perspective. For example, Klitgaard's and Rose-Ackerman's perspective advocates the need for markets, that provide choice of suppliers, as a means to reduce corruption (Larmour, 2007). Indeed there are ongoing calls to privatise activities as a means to reduce corruption. In practice, however, efforts to privatise industries have also been susceptible to corrupt activities (Hellman et al., 2003). A second criticism is that that this conception fails to accommodate the more complex social, historical and political dimensions that create and support different types of corruption.

This second criticism is supported by a large body of research that has focused on the complex social and institutional dimensions of corruption. This, primarily qualitative research, points to the complex social processes, relationships and norms associated with corruption in different contexts. For example, in their research on local-level tree trade in India, Corbridge and Kumar (2002) described the complex bureaucracy and the social relations between state officials and communities which affects the cost and type of corruption involved. Indeed, the social dimension of corruption was also supported by an

analysis focusing on the institutionalised nature of corruption in natural resource management (Robbins, 2000). McCarthy's work (on the political ecology of agrarian reform in Indonesia) also documented how historical, political and economic biases affected corrupt networks following decentralisation (McCarthy, 2000b, 2006). In Cameroon, the complex interplay between political interests, regulatory changes and livelihood opportunities has also been shown to impact upon the type and nature of corruption, specifically driving shifts towards the informal taxation of timber logged by small-scale operators (Cerutti et al., 2013). This body of research has therefore pointed to the complex economic, social and institutional norms that can affect whether corrupt exchanges occur, and the type of corrupt exchanges. Furthermore, in describing this more complex context-dependent perspective of corruption, these authors challenge the simple idea of corruption that are evident in the more rational-choice perspectives.

Relatedly, there has also been a stream of literature focused more specifically on issues of patronage and rent-seeking, both of which have been documented in the literature on corruption and natural resources (Kolstad and Søreide, 2009). Patronage, which refers to the use of state rents to secure political power, has been shown to be incredibly prevalent in many contexts (McCarthy, 2002a, 2006; Ross, 2001), and is thought to be a core type of corruption that occurs in the forest sector (Kolstad and Søreide, 2009; Kolstad and Wiig, 2009). The focus on patronage in forest-related research therefore highlights the issue of political power and how corrupt exchanges may be used to attain it. Rent-seeking, which refers to the socially costly pursuit of rents, is another activity which can involve corruption. That is, there are rent-seeking activities that do not involve corrupt exchanges, such as political lobbying. However, corruption can also be used as a rent-seeking strategy; indeed, the role of corruption in rent-seeking has been a common theme of much corruption research (Kolstad and Wiig, 2009; Krueger, 1974; Lambsdorff, 2002). Furthermore, given the negative economic impacts of rent-seeking, the focus on corrupt rent-seeking and natural resources has led to concerns that corruption may be an explanation for why the presence of natural resources may negatively affect a country's economic development (Kolstad and Søreide, 2009; Kolstad and Wiig, 2009): a paradox

referred to as the resource curse (Sachs and Warner, 2001). I return to discuss the resource curse and the broader impacts of corruption further in the next chapter.

However, the final part of the literature on corruption that I introduce here is a recent study on the experiences of corruption by entrepreneurs. Much of the literature described above has focused on drivers of corruption, such as rent-seeking, or the broader institutions that support and demand corrupt exchanges. However, much of the literature has failed to investigate the experience of corruption from the point of view of those actually engaged in it. An exception to this is a recent study of corruption in Nigeria, which sought to understand how entrepreneurs experience corruption (Ufere et al., 2012). Ufere and colleagues argued that rather than being victims of greedy government officials, entrepreneurs were engaged in many activities, which created a demand for corruption. Specifically, they identified two main strategies that entrepreneurs use corruption for: the first being budget capture, the second consent. These different motivations for corruption involve different types of corruption, with the first involving kick-forwards and long-term strategies to build relationships with key government officials in order to secure government contracts, while the second involves simple *incentivising payments* in order to gain access to government services, such as permits. Their findings highlight the diverse strategies and motivations that are involved in corruption and they describe how corruption is 'governed by an intriguing and well-embedded set of social norms, rules, routines, and power relations' (Ufere et al., 2012, p. 2440). However, their focus solely on the entrepreneurs may miss some of the important aspects of how government agents respond to the strategies of entrepreneurs, and how government agents may also create demand for corruption. Their paper therefore highlights the need for further research into how multiple actors, such as government, business and civil society, engage in and experience corruption in different contexts.

Together the diverse body of literature on corruption, including the rational-choice, the cultural, the sociological and the institutional perspectives, highlights how multi-faceted the phenomenon of corruption is. Even though this body of literature has identified many complexities associated with corruption, there are nonetheless gaps. In particular, there has been less research from the perspective of those engaged in corruption, an important

gap given the interesting findings of Ufere and colleagues in Nigeria (2012). And whilst the findings of Ufere and colleagues identify aspects of how specific actors experience corruption, by focusing only on the activities of entrepreneurs and their strategic use of corruption, their research may miss the important interaction between the activities and experiences of entrepreneurs, and the activities and experiences of other relevant actors, such as government. Furthermore, the existing research demonstrates how context-specific factors—including the formal institutions of the state, the availability of rents, and the historical or cultural practices—affect the type of corruption that can occur. Therefore, the literature on corruption highlights the need to understand the context-specific process of corruption in order to better determine how corruption may affect resource use, and further justifies the use of grounded theory methodology for my research.

The next section presents the results of the grounded theory of corruption. This grounded theory is based on fieldwork conducted in Central Kalimantan in Indonesia and PNG, between November 2010 and March 2012. Overall, 82 people were interviewed, several of whom were interviewed multiple times. Secondary data including government and media reports were also analysed. As discussed in Chapter 2, conducting a grounded theory on the sensitive topic of corruption posed specific methodological challenges, particularly in relation to the availability of information and the analysis process. The consequence of these challenges is that although many people were interviewed for this research, much of the data for this theory is based on several key informants—an approach which has been adopted in other ethnographic and sensitive research (Houston and Sudman, 1975).

The process of data collection and analysis for this grounded theory was done in connection with the collection and analyses of data for the grounded theory on forest governance presented in the previous chapter. The grounded theory presented below therefore draws on the findings of the grounded theory of forest governance. Overall, the process of open coding identified six concepts, which explained the nature and process of corruption that the respondents described. Through the use of the constant comparison method and theoretical sampling (Chapter 2), these original six concepts were reduced to

the three core elements that are presented below. Following the grounded theory, Section 6.4 presents an analysis of the findings of the grounded theory on corruption, focusing on issues of compliance and legitimacy.

6.3 Theory

This grounded theory is closely related to the previous grounded theory on forest governance, because the key process of negotiating if and how regulations are implemented remains the same. Therefore, a key theme throughout this grounded theory of corruption is how corrupt exchanges, or corrupt interests, may affect the negotiation over the implementation of regulations. Specifically, a core feature of this theory is the inter-linkages between corrupt exchanges and the regulations. Again, my focus is not about the creation of regulations, but rather on the corruption that occurs in the field. Furthermore, whilst there is no doubt a considerable amount of corruption involving actors such as civil society, the focus of this theory is on the higher-order, commercial-scale corruption, particularly that taking place between government agents and companies. The focus in this grounded theory is therefore on the actual practice of corrupt exchanges and the broader systems and relationships that are built to support or demand that corruption.

There are three core elements of this theory. The first element is about the different types of corruption and how they relate to perceived problems with the regulations. This is particularly the focus of companies, for whom corruption was a means to secure other interests, such as preferential treatment or to bypass costly regulations. The second element has to do with the motivations of government agents themselves, and how they use the authority of the state and the threat of enforcement of regulations as a tool to meet other ends. Together, these two elements build towards understanding the system of mutual dependency, which defines the relationships behind corrupt exchanges. The final element of this theory has less to do with specific corrupt exchanges, but it is key to understanding how corruption occurs. It is about the process of positioning, whereby government agents seek to position themselves to create opportunities for future exchanges. The final part of this theory points in a different direction, describing specific

relationships and exchanges that were often described as linked to corruption, but are nonetheless distinct from specific corrupt exchanges.

6.3.1 Regulatory problems and corruption

Companies

One of the key elements of this grounded theory is the relationship between corruption and the content of regulations. On the one hand, corruption can affect the perceived quality of regulations, as regulations are seen to be protecting the interests of the corrupt, rather than protecting the interests of all citizens. Corruption was also commonly described as a response to problems with the regulations. As described in the previous chapter, there were many of those perceived problems, including a mismatch between the content or demands of regulation and the other interests associated with government or business activities, ambiguity in the regulations and overly complex regulations. Corruption was routinely described in relation to these problems. That is, a key characteristic that was used to distinguish different types of corruption was the regulatory problem which corruption dealt with. Put another way, corruption was often described as a tool to deal with problems with the regulations, and different respondents described different types of corruption that were used to deal with different regulatory problems.

One of the most common examples of this was in relation to the problem of overly complex and time-consuming regulations and 'speed money' corruption. Respondents from companies in particular described using speed money, which is a payment aimed at speeding up the bureaucratic process. Speed money could be paid to both politicians and bureaucrats and could involve small or large sums. One company representative in Indonesia described how individual payments to government officials may be as small as Rp 50,000 (about US$5), often referred to by the euphemism *cigarette money*. At this lower order, these payments also worked to build relationships, and in one case where a company paid such *cigarette money* to police monitoring the traffic of timber down a river, they explained that it was to show appreciation, because the police must wait around all day (Industry representative. Meeting 36, 24 March 2011). Payments made to

higher officials, such as heads of departments, were more costly, as anything 'less than several million rupiah would be useless' (Agriculture company representative. Meeting 56, August, 2011). The aggregate cost of getting paperwork through complex bureaucracies meant that many companies who were dealing with the bureaucracy in Jakarta described hiring agents to pay these bribes on their behalf. They hired these agents in part because, as one respondent described, the cost of these payments was too large for them to hide in their company records. If the company hires agents, these payments can be covered as consultancy fees, which provides a legitimate cover for such corrupt payments. Then the agent uses their networks and distributes the necessary bribes throughout the bureaucracy in order to help facilitate the paying companies' interests (Industry representative. Meeting 35, 22 March 2011). And in Indonesia particularly, these kinds of speed money were ubiquitous; as one company respondent described, these payments are made 'at every desk of every office' (Industry representative. Meeting 57, 11 August 11).

Importantly, these corrupt exchanges also drew on personal networks and influence. These were particularly important for actors who were less likely, or able, to pay bribes. As a representative from an international organisation explained, getting an environmental impact assessment (AMDAL) completed could take from one to three years depending on how much one were willing to pay, but they would aim to get through, obviously without paying, by using their contacts and highlighting to officials that this project was about rehabilitation and reforestation (Meeting 16, 12 November 2010). This idea of using relationships to get things done quickly is a more common strategy in PNG. Respondents from PNG described how it was far less common to make direct payments to bureaucrats. Rather, the strategy seems to be to get relevant politicians on-side, sometimes drawing on familial or ethnic relationships (*wantok*) (for example see Dorney, 2000), and then those Ministers would use their influence to affect the bureaucratic process. Indeed, many bureaucrats described how Ministers call and make demands of the relevant department heads or the PNG Forest Authority (Government representative. Meeting 19, 18 February 2012).

Importantly, whilst many respondents described making such payments and seeking to influence the bureaucratic process, this was most often described as speed money, and claimed to be a necessary response to complex and time-consuming regulations. Respondents, particularly from companies, stressed that these *envelopes* (a common Indonesian euphemism for payments to government officials) did not affect the company behaviour, as they 'still needed full compliance' (Industry representative. Meeting 35, 22 March 2011). That is, these payments facilitated speed, or preferential treatment in processing applications. They also include queue-jumping payments, which were paid in response to situations where there was a backlog of applications, and insufficient staffing. For example, when a 2006 court decision reversed the decision to re-zone forest area in the ex-mega rice project area (Chapter 3), companies operating in the area without permission from the Ministry of Forestry (hereafter the Ministry), particularly oil-palm companies, became illegally operating in the forest zone. These companies all had to apply to the Ministry for a permit[78] that would release the area from the forest estate, so that they could operate legally. A representative from one such company explained that the reason they had so much trouble getting permission from the Ministry was that 'there are insufficient staff to actually go out and conduct the appropriate surveys and they [government officials] are all confused' (Industry representative. Meeting 57, 11 August 2011). Speed money therefore allows a company's application to be processed ahead of other companies who do not pay, or who do not pay as much. The analogy used by one respondent was of a toll way. You either sit in traffic or pay to use the expressway. Either way the destination—meaning the legal certificate—is the same (Meeting 35, 22 March 2011). However, in situations where there were other problems with the regulations, such as ambiguous regulations or government capacity, corruption did not take the form of speed money.

In PNG for example, there were many payments between companies and bureaucrats that were not speed money, but rather these were payments between companies and

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[78] Specifically, companies required the area that they were occupying to be formally released from the forest estate, which came in the form of a permit (*pelepasan kawasan hutan*) from the Ministry of Forestry.

government officers that resembled legitimate fees. Government, company and NGO respondents all acknowledge the practice of companies (mining, logging and other) providing the funds (or in-kind payments) in order to get government officials to carry out their jobs. For example, companies may pay government officials, or provide in-kind support such as transport, to enable the official to conduct the surveys that are part of the process of getting a logging concession. These types of payments were made in response to complex regulations and the lack of government capacity to implement those regulations. In some cases, such payments may not constitute corruption, which I discuss in further detail in section 6.3.4. However, these payments can involve corruption, when for example government officials demand such payments when they already have the funds to conduct the legal surveys. Indeed, respondents from NGOs and other groups argue that such payments constitute corrupt transactions, because the companies are paying to get a semblance of legality, or paying to get paperwork which they are not entitled to. This suggests that whether or not such payments constitute corruption depends on a variety of factors, such as whether the payments affect how the government officials do their job and whether such payments are demanded in excess of the actual costs of operation.

This leads to another type of corruption described by respondents, specifically where payments (or in-kind exchanges) are made to bypass an existing regulation, rather than to speed-up or facilitate the bureaucratic process. These types of corrupt payments were made to bypass regulations that were seen as impossible to comply with or that generated high compliance costs. In both cases, such payments are made to secure the sometimes tacit, sometimes explicit, support of government officials for activities that are illegal. That is, these types of corruption involved payments to ignore illegal activities, and payments to get a semblance of legality. Payments are made to hide illegal activities with the appearance of legality, often in the form of fraudulent documents. These fraudulent documents include, for example, payments to obtain monitoring reports that do not disclose breaches, or transport permits that falsely identify illegally harvested timber as being timber from a legal concession. Many reports, articles and respondents from both countries have documented cases where, because of corrupt payments, government

officials have failed to report on illegal practices of logging companies (Casson and Obidzinski, 2007; Department of National Planning and Monitoring, 2004b; ICW, 2009a; Review Team, 2004). Corrupt payments were also blamed for many logging proposals being approved despite clear flaws. As one industry representative described, proposals for licenses to develop agriculture in forest areas were approved, despite the applicant companies having little experience or financial capacity, because those companies had paid government officials, for example with 'study trips to Hong Kong or Rio or wherever' (Meeting 2, 3 May 2011). These instances highlight how corrupt payments can be used by companies firstly to bypass the legal processes that, for example, assess applications for logging licenses and secondly, to gain a semblance of legality. Corruption involved in either of these activities is therefore responding to regulations that have a high cost (relative to the cost of corrupt payments) of compliance.

In other cases, it may be that payments were made because it was basically impossible to comply with regulations. That is, because regulations are ambiguous, it is impossible to operate fully legally, so companies have to pay to continue operating despite failing to fully comply with the regulations. For example in Indonesia, conflicting and changing land-use plans means that companies may be illegally operating in the forest estate according to one map, but not according to others. Such companies routinely have to pay to secure ongoing support from different government agents, who threaten closure for non-compliance. Indeed one district-level elected official in Indonesia explained that there were times when he felt sorry for companies that did not have the full permissions to operate plantations, because 'they become like ATMs'[79] for the government officials (Meeting 42, 16 June 2011). Different types of corrupt exchanges are therefore used as a means to an end, either to get preferential treatment or to bypass regulations.

Government agents

The perspective of corruption as a tool differed between companies and government agents. That is, corrupt payments were a tool to influence the negotiation over the

[79] Automatic teller machines (ATM). They are equivalent to instant cash machines.

implementation of regulations by companies specifically to speed-up the process, to get preferential treatment and to bypass regulations. However, for government agents, accepting and demanding corrupt payments from companies was a means to achieve other interests, such as private payments or recruitment costs. That is, the authority to enforce laws (or condone non-compliance) was the key power that government officials could use to demand such payments. However, for government officials, the reason for accepting such payments was not about influencing the process of negotiation over if and how regulations were implemented.

The motivation for government officials to engage in corruption was described, by industry and NGO respondents and the media, in relation to systems of recruitment in the public service in Indonesia (for example Krisna et al., August 29, 2013). To be recruited to the public service, and later to be promoted, (prospective) officials need to bribe key public servants. This system was widely discussed in Indonesia—although few government participants openly acknowledged it. However, those who did pointed to a complex system of merit and debt. As one government schoolteacher explained, recruitment was based on several factors, including university transcripts, experience, and the amount of money that the candidate would provide (Meeting 64, May 2011). These payments are made at the point of recruitment as either up-front payments, or agreements are reached about payment plans. This system operates throughout the bureaucratic hierarchy, as those hiring new employees must also make payments to their bosses. Officials from forestry did not admit to this system openly, but representatives from NGOs and other departments, including agriculture and mining, supported this description, as do reports from the literature (Kristiansen and Ramli, 2006). This implies that we can expect this system to also apply to the forestry, and other related departments, such as environment or planning departments.

As government officials must recover initial expenses, or continue to make payments to secure future promotions, it creates an interest to accept or demand payments. This created different incentives, as government officials sought to position themselves in jobs

where there was a higher opportunity to extract payments—historically these were referred to as *wet departments*[80]—and higher payments were needed in order to be employed in these positions. This meant that government agents were largely dependent on being able to extract extra payments from companies (or others) that they came into contact with, in order to distribute these payments to those higher up in the bureaucracy.

As with public servants, elected officials were also dependent on being able to extract payments from companies in order to secure their position. That is, rather than using corruption as a tool to bypass regulations, for elected officials, corrupt transactions were a means to secure political power. In a similar way to public servants who relied on corrupt payments to secure their employment, elected officials relied on payments from companies to secure their election. Elected officials at all levels of government, being district, provincial and national, have been reported to be dependent on payments from companies to support their electoral campaigns. The dependency of elected officials on campaign contributions from companies has been particularly important since the implementation of decentralisation in 1998. This is because decentralisation led to a dramatic rise in the number of elections and an increase in the expenses associated with running a competitive election campaign. Political parties could no longer provide sufficient funds to prospective candidates. Furthermore, candidates have been reported in the literature and media as spending billions of rupiah to win district elections (Mietzner, 2011; Tempo.co, 13 March, 2012). Prospective candidates must then find their own sources of finance in order to run successful campaigns.

Respondents and evidence in media reports (for example Maryono, Tuesday, 17 April 2012), described two processes that led to this dependency. The first involved prospective candidates directly approaching companies for funding. Respondents from one company explained how, even two years before the district election, prospective candidates had approached the company seeking *support* for their campaign; this was described as

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[80] Whilst many officials acknowledge this term, it was not frequently used and it seemed to refer more to the conditions prior to decentralisation in Indonesia. However, it was clear from discussions with public servants, other researchers and NGOs that the positions are preferable in certain departments and with bosses that are best able to attract conservation funding or attract the investment of companies.

standard practice. They described how initially a company would support any true candidate, then as it becomes clear who the most likely real contenders are, the companies direct their support towards those candidates (Meeting 35, 22 March 2011). Another industry representative explained that it was important not to be too selective and to keep all potential candidates on-side, and was shocked at reports that one company had actually put advertisements for one particular candidate in their plantation. Such preferential treatment for one candidate was described as a very risky strategy for the company (Company representative. Meeting 61, August 2011). These payments are mostly used to directly fund aspects of the election campaign, such as buying election material—hats, clothing or banners. The second approach (reported on Java Island), was that candidates would go into debt, for example by mortgaging their houses, to fund their campaigns (Maryono, Tuesday, 17 April 2012). Those who are elected recover such costs during their term in office. In areas with significant natural resources, the costs of election campaigns were recovered through corrupt payments associated with licensing and other government functions that needed elected officials' approval. For example, one respondent noted that mining exploration licenses in one district cost around Rp 1 billion (about US$ 90 000) in bribes for every 5000 ha (Industry representative. Meeting 60, November 2011).

6.3.2 Mutual dependency

Mutual dependency refers to the relationship between government officials and companies that are built around corrupt exchanges. This relationship exists because government officials need the payments to secure elections, or positions within the bureaucracy. Companies need to be able to pay in order to be able to continue their business activities, and this is particularly the case for companies that, as one company representative described, are 'naughty' but brave, who pay to continue operating (Meeting 41, 16 June 2011). In this way, these different actors are mutually dependent on the others engaging in corruption in order to secure their interests. However, the relationship of mutual dependency can go beyond regulations or illegal activities, as payments may not be tied to any specific illegal activity.

That is, whilst corrupt payments may be tied to specific patterns of implementation of the regulations, companies also described how corrupt payments served to keep the elected official *on-side* and to ensure that there was a 'good relationship' between the government and company. One company respondent explained that even if provincial and district governments did not really have the right to interfere with company's activities (because that company's license had been issued by the central government) they still must keep a good relationship with the district heads: the 'Bupati sometimes asks double [envelopes] from the company, or they can just say 'We don't care about your work permit, you are here [in this district] now, in our area, not in central' (Meeting 35, 22 March 2011). Given that companies perceived they are dependent on the support of the politicians and officials, they must therefore make such payments. In these cases, the money is paid continuously without specific activities in mind. For example, a local newspaper quoted a district head in another area describing how companies routinely asked him for bank details so that they could easily deposit funds into his account (Bharatanew.com, 2011). A different company representative, discussing his work in another province, described negotiations with one district head over the establishment of a *development fund*—which the respondent managed to negotiate 'down to 30 billion rupiah'—and said that the district head did not want any record of this transfer, or any conditions applied to how that money would be used (Meeting 35, 22 March 2011).

This system of campaign finance and collusive relationships between companies and government officials (elected and employed) was frequently mentioned by interviewees in Indonesia, but interviewees in PNG described different systems and relationships. Whilst there were some respondents who claimed payments were made to secure licenses—for example, the quote reported earlier regarding license approval and trips to Hong Kong—a direct relationship between elected officials and companies was reported more often: many Ministers (of forestry and agriculture) and local members of parliament often have direct (part or full) ownership of individual companies. For example, the Minister of Forestry—in office at the time of fieldwork for this thesis—reportedly had stakes in two logging and one agricultural project in his electorate. In and of itself, such ownership constitutes a conflict of interest, which I discuss further below, rather than outright

corruption. However, this can more closely resemble corruption, if those elected officials use their positions to secure favourable conditions for companies they own or partly own. There have been examples of cases where elected officials have used their positions to get favourable treatment (Barnett, 1990a; Greenpeace, 2004) and there were reports that the Minister during the time of this fieldwork had also used his power (particularly over the operations of the police) to interfere with competing companies in his electorate (ILG chairman and village head. Meeting, March 21, 2012).

6.3.3 Positioning and political interference

The third component of this theory has to do with the process of positioning. Positioning refers to how different actors sought to position themselves for corrupt exchanges—such as recruitment described above. This included both direct recruitment into *wet departments*, but it also refers to positioning to get the authority over specific regulations, such as the authority to distribute logging concessions. As I described above, the authority to distribute licenses, and the threat of enforcing costly regulations, are key powers that government officials use to extract payments from companies. Government actors seek to position themselves in order to get these powers and therefore create opportunities for corruption. Positioning was particularly evident in the way in which elected officials interacted with bureaucrats, specifically how they sought to position themselves to better control the bureaucracy.

In both countries there are rules that seek to limit the amount of political authority and interference over the functioning of the bureaucracy (Chapters 3 and 4). Formally, Ministers and heads of department have little discretion over licensing or other aspects of monitoring companies' activities. In PNG, the Minister is required to approve licenses, but only based on the recommendations of the Forest Authority Board (hereafter the Board). Indeed the Board was introduced in order to reduce the discretion of elected officials (Chapter 4). In Indonesia, (depending on the zoning of the land) the district head provides recommendations to the province (for forest estate) or approves a permit (for non-forest

estate) based on recommendations of the relevant government departments.[81] These recommendations are made after surveys are conducted and the proposal is assessed according to specific criteria.[82] Even though these systems are designed to reduce the interference of elected officials, in both countries there were informal systems in place to ensure that the interests of elected officials were represented in decision-making. These informal systems involved a variety of positioning strategies.

That is, in both countries participants described systems that either bypass the role of the bureaucracy or influence their decision-making to ensure that the outcome matches the needs of the elected officials. There are several dimensions to this. Firstly, respondents described how elected officials seek to position bureaucrats who support their ideas by selective recruitment or appointment. Respondents from NGOs widely cited how the heads of departments all change after each election (Meeting 4, 29 November 2010). In PNG it was also described as a system where people have to 'fend for themselves' and that this is why 'since the department of forest transformed into the forest authority. There have been how many Managing Directors now?' (Industry representative. Meeting 12, 20 May 2011). He meant that whenever a Managing Director was not supportive of the interests of the politicians, he would be replaced. One strategy of elected officials to better control the bureaucracy in PNG was to keep the appointed heads of departments as *acting* for many years (Researcher. Meeting 5, 9 May 2011). This also worked through the whole bureaucracy, where local field officers explained that in relation to the pre-Barnett era, 'it is from the top, you cannot do much when you are down there. When you start making noise, they shift you out.' (Former forestry official, now industry representative. Meeting 12, 20 May 2010). Given the conditions above, where elected officials rely on companies for campaign support, such strategies are vital to ensure they have something to exchange and are necessary to gain access to corrupt payments.

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[81] Relevant government departments include the Regional Planning Department (Badan *Perencanaan Pembangunan Daerah)*, the Environment Department (*Badan Linkungan Hidup*) and, depending on the activity, the Department of Forestry, Department of Mining and Energy (*Departemen Pertambangan dan* Energi) or the Department of Agriculture (*Departemen Pertanian*).

[82] These criteria include a variety of conditions including features of the landscape such as the gradient of any slopes, the presence of any watercourses or the presence of protected species.

Another strategy that respondents described was to use other informal powers to bypass the responsibility of the bureaucrats. This was particularly described by respondents in PNG, who detailed how Ministers and other elected officials had sought to utilise 'residual [colonial] powers' (Researcher. Meeting 5, 9 May 2011). This respondent described how many of the existing rules in PNG are extensions or amendments to the old administrative system that existed under colonial rule. Under this system, much of the power was concentrated in the colonial administrator. Whilst there have been many reforms in the regulations, some of the residual powers remain. The example provided was a case where a logging company in PNG had negotiated a supply contract with a foreign furniture producer on the condition that supply would be secured for a minimum of one year. The Minister, who, as a result of old colonial authority systems, still has the final responsibility of signing export permits, refused to sign enough permits. The company was unable to provide security of supply for a year, so the contract fell through. The respondent claimed that the Minister's decision was driven by concern for the year-long supply of bribes that would have been lost had he approved the conditions of this contract (Meeting 20, 10 February 2012). This arguably constitutes 'an abuse of public office for private gain' and works to position the official for future corrupt payments. Not all efforts to position others, or to control the bureaucracy, may be tied to corrupt activities; however, different respondents described such positioning activities as key to the process of corruption.

6.3.4 Conflicts of interest, and mismanagement and negligence

Whilst the three elements described above are all focused on specific corrupt exchanges or describing the relationships that support those exchanges, it is important to highlight other dimensions that emerged from the data: conflicts of interest, and mismanagement and negligence. Despite not involving corruption, these two aspects are nonetheless important to understand corruption in the forest sector. Conflicts of interest emerged as a core problem underpinning corrupt exchanges. Mismanagement and negligence were commonly mistaken for corruption or instances of negligence, but often were also wilfully mislabelled corruption to create allegations of corruption as a tool to motivate particular actors to conform to, or support specific interests. Together these two aspects are

important because they highlight wider dimensions to the phenomenon of corruption. Let us consider them in detail.

Conflicts of interest

Respondents in both countries referred to real and perceived conflicts of interest as a problem related to corruption. In Indonesia, conflicts of interest were closely related to corruption, as it was most commonly described in relation to the system of mutual dependency. That is, the system of recruitment was thought to create conflicts of interest between the private needs to collect money and pay for favours, and the public interest of doing their job. In contrast, in PNG, conflict of interest was often treated as separate from corruption, described as creating a potential for corruption, but not necessarily corrupt itself. One of the key examples of this potential was in relation to a company paying government expenses, or the 'legitimate fees' I described in section 6.3.1.

As described above, it is a costly and complex process to establish an FMA and to tender the project for a logging company.[83] The areas under FMA are often incredibly remote and access is only possible using a helicopter plus several days walk. It may take several months to access these areas, travel between the villages, identify relevant landowners, verify genealogies, walk the entire boundary of the area to verify the territory, and conduct the socialisation necessary to inform consent (Chapter 4). The relevant government departments, such as the Forest Authority and the Department of Lands and Physical Planning, are unable to fund their staff to go and do these surveys and, as many respondents explained, these costs were all born by interested companies (Government representative. Meeting 16, 26 May 2011). This pattern goes beyond land surveys and applications to integrate landowner groups. Reports from a review in 2004, for example, described how in one area the PNGFA project supervisor was housed over 70 km away from the project and had no independent means of transport. 'As a consequence the PNG FA field staff have had to develop a close relationship with logging company field managers with respect to being provided with accommodation, meals, etc.' (Department

[83] FMA are the main concession licenses required by companies wishing to log forest in PNG (Chapter 4).

of National Planning and Monitoring, 2003, p. 12). Many respondents, including those from companies, acknowledged these cash and in-kind payments. Indeed, company representatives complained about the cost of this system. For example, when discussing the need to pay for landowner group registration, one company respondent explained that while the government (Department of Lands and Physical Planning) is meant to undertake this, 'but they don't have the money to do it. So we need it. So we have to go and do it for them... We need the resource [timber] to continue our operations... We have to do their thing. We send the report to the village, we get the names, fill the form, submit to lands department to register... It takes long time, a few years, to do it. And you pay for all the transport.' (Meeting 12, 20 May 2011). These types of payments, although technically illegal,[84] create potential conflicts of interests, rather than necessarily being corrupt. As I mentioned earlier, such payments become corrupt if they are demanded by government officials in excess of the costs of doing their job, or if the payments result in government agents preparing surveys that are fraudulent or biased towards the interests of the paying company.

However, when questioned, government representatives and companies all explained that this did not alter the way in which the activities were conducted. For example, when asked about the potential conflicts of interest, a lands department official explained that the ultimate agreement was between the company and the landowner, 'the department goes in neutrally' (Meeting 16, 27 May 2011). Indeed, in discussing the issue of conflicts of interests, a local representative of an international development agency explained that conflicts of interest may not affect decisions, and therefore may not be a problem (Development agency representative. Meeting 13, 24 May 2011). Yet the potential for this conflict of interest to alter decisions and become a corrupt exchange was widely discussed by other respondents. One former forestry official, now NGO representative, described how officials in the field do not actually monitor companies' operations, they just sign any document the company needs '... because if you don't, next time your wife gets sick or kid needs to be flown out to hospital, you can't.' (NGO representative. Meeting 8, 13 May

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[84] It is illegal for a public servant to accept payments from companies.

2011). The presence of conflicts of interest then highlights the potential for corruption. However, it is nonetheless important to acknowledge that conflicts of interest do not necessarily constitute corrupt exchanges themselves.

Mismanagement and negligence

The second aspect has to do with the difference between corruption and mismanagement and negligence, as it emerged from these data. I noted above that allegations of corruption are also tools used to legitimate other activities. This is relevant for understanding how allegations of corruption hide other problems—particularly problems of negligence and mismanagement. Many respondents, including those outside the public sector, explained significant challenges associated with negligence, lack of information and mismanagement. One respondent from the timber industry in PNG explained that the challenge is not corruption, but in getting the forestry officials to actually 'do their job'. He went on to explain that '... the state provides nothing. If you are going to run a timber company in PNG, as opposed to say to Australia. You have got to build roads, bridges, towns, schools, health facilities... You have got to assume all the roles that government would. Because there is no government beyond Waigani.[85] It is a free-for-all out there.' (Meeting 2, 3 May 2011). In Indonesia, this was particularly tied to questions of capacity, where outcomes that people disagreed with were described as corrupt, rather than as negligence and mismanagement. Mismanagement and negligence can therefore be linked to corruption in a variety of ways, because they can provide a cover for corrupt exchanges, or mismanagement and negligence can be mislabelled, or misinterpreted as corruption. It is this latter case, particularly, which demonstrates how allegations of corruption can be used as a political tool, and demonstrates another dimension of how corruption can affect the negotiation over the implementation of laws.

[85] Waigani is a neighbourhood of Port Moresby where many of the government offices are located.

6.4 Discussion

Let me now integrate the two grounded theories of forest governance (Chapter 5) and corruption (presented above), thus situating corruption within the broader process of forest governance. Specifically I identify different types of corruption, how they relate to the literature on corruption, and how they may affect the process of negotiation over the implementation of regulations.

As I discussed in the previous chapter, the process of governance that emerged from the data was a process of negotiation over if and how regulations were complied with or enforced. There are several ways by which corruption—both specific corrupt exchanges and the relationships and systems that emerge to support or demand corrupt exchanges—affect this negotiation. Firstly, corruption can affect the process of prioritising because corrupt exchanges, or establishing the opportunities for them, become the priority. This is particularly the case for government officials. This is not a new idea; indeed, the interests associated with private corrupt payments have become so persistent in some contexts that authors have re-defined those political regimes accordingly, for example, Gellert's 'extractive regimes' (2010). Under this definition, the entire political system and the key priority of government officials is the extraction of resources (Gellert, 2010), an idea that has also been reflected in research describing state-capture (Hellman et al., 2003) and rent-seizing government behaviours (Ross, 2001). However, this research also shows that in the contexts considered here, corruption was not the only priority. That is, corrupt payments were part of the negotiation over other priorities, which could surpass the interests associated with corruption. Indeed, this argument has been supported in localised studies of corruption that point to complex negotiations over amounts of bribes for different activities and different actors (Robbins, 2000). However, unlike Robbins, who described other priorities such as historical social relations, this research identifies other priorities including the reputation of both government and industry, and factors such as the match between the regulations and the actual environmental conditions.

As well as being a priority in itself, corruption can affect the process of negotiation by altering other interests, or changing how they are prioritised. As I discussed in the previous chapter, actors can have an interest in avoiding the costs associated with complying with regulations, and at the same time, have an interest in complying with regulations in order to avoid the risks associated with prosecution and damage to reputation. Corrupt exchanges can affect decisions about whether to comply with different regulations because corrupt exchanges can reduce the risks associated with lack of compliance. That is, corrupt payments can help protect those conducting illegal activities from being charged or taken to court and, when corrupt exchanges are made to get officials to sign paperwork, corrupt payments provide (albeit fraudulent) legal cover for illegal activities. Whilst the latter (being a semblance of legality) was particularly important for companies that relied on legality in order to gain market access, overall, the idea of a semblance of legality is key to understanding both theories. More broadly, the involvement of corrupt payments in a semblance of legality is closely related to perceptions of corruption in the literature on illegal logging, in which corruption is most commonly described simply as 'facilitating illegal logging' (for example Callister, 1999).

However, it is also important to note that in some situations, high demands for corrupt payments may also result in companies placing a higher priority on legal compliance. For example, a quote from a government official in Indonesia reported above describes how companies without licenses become cash machines for government officials. These companies were in a position where, because of ongoing confusion over the zoning of land between the forest estate and the non-forest estate, it was unclear whether they required permission[86] from the Ministry. This meant that, in the short term, legal compliance was impossible. For these companies, the ongoing costs associated with paying bribes to government officials could therefore create more incentives for the companies to comply with regulations. However, this would only be the case when the cost of such bribes is higher than the cost of getting the legal permission from the

[86] Specifically, whether they required the area that they were already operating in to be formally released from the forest estate.

Ministry, and if the legal activities are also immune from bribes. However, it has been reported, both in this research and the literature, that even companies that fully comply with regulations may still be asked for corrupt payments (for example Smith et al., 2003a). The point is that under different circumstances, corruption, or demands for corrupt payments, can have a variety of impacts on the process of negotiation.

Secondly, whilst legal compliance, or the appearance of it, is widely considered to be important to protect the reputation of companies, a key consideration that emerged from the data was the importance of this semblance of legality to protect the reputation of government officials. This points to the relationship between state legitimacy and corruption, which is another way in which corruption can affect the process of governance. That is, corrupt exchanges can affect the legitimacy of different activities, and therefore impact upon the negotiation over if and how regulations are enforced and complied with. Much of the literature on corruption and legitimacy has focused on the negative, but general impact of corruption. That is, corruption is thought to reduce state legitimacy, because corruption affects the principles of participation and representation associated with democracy and therefore reduces the legitimacy of state operations (Anderson and Tverdova, 2003; Seligson, 2002). In a theoretical examination of the impacts of corruption on democracy, Warren (2004; 2006) argued that corruption had specific impacts on openness and inclusion (considered key principles of effective and legitimate democracies). So the problem of corruption in a democracy, according to Warren, is that it leads to duplicitous exclusion (Warren, 2004, 2006), which reduces the legitimacy of the government. Other studies have also pointed to different negative impacts, such as how corruption increases distrust of significant political and administrative institutions (Hacek et al., 2013), and how corruption can be both the cause and consequence of poor government performance leading to lower state legitimacy (Della Porta, 2000), however these impacts are often dependent on other factors, such as political allegiances (Anderson and Tverdova, 2003). Indeed, this literature points to the fact that state legitimacy is affected by the activities and legitimacy of state officials. However, it is important to acknowledge that state legitimacy and the legitimacy of government officials are different.

Beyond the broader impacts of corruption on the legitimacy of the state and government officials, the idea that corruption reduces legitimacy has also been demonstrated in research focusing on the forest sector specifically. Investigating the implementation of new forestry laws in Peru, Smith and colleagues (2006) found that the historical pattern of corruption was a factor that had reduced the perceived legitimacy of the state. Importantly, they argued that corruption and lack of state legitimacy had long-term implications for norms of compliance with changing state regulations. For example, the perceived historical biases and corrupt practices in the past affected the perception of the quality of regulations, which in turn affected the norms of compliance (Smith et al., 2006), a pattern which has also been reported in Indonesia (McCarthy, 2004).

Although there are no doubt negative impacts from corruption on the legitimacy of officials and on state legitimacy more broadly, the findings from this grounded theory point to the fact that this relationship may be more complex than previously noted in the literature, because corruption can have a variety of impacts on legitimacy. This is particularly the case when considering corruption and the legitimacy of specific projects. For example, there were many cases where corrupt exchanges could provide legitimacy to specific activities, by providing a semblance of legality, which arguably protects the reputation of both the company and government officials and contributes to the legitimacy of the project. Also, it has been shown that enforcing regulations—for example, by fining illegal activities—can be important for the reputation of government and ultimately lead to higher levels of compliance (Caplan, 2003). Irrespective of the ultimate level of compliance, the idea that condoning illegal activities has reputational risks for government departments is significant, and it further supports the fact that a semblance of legality can be important for state legitimacy.

That is, whilst there are few studies in the literature that explore the reputational risks arising from condoning illegal activities,[87] it is clear that state reputation and legitimacy is, in part, built on principles of rule of law. Corrupt payments that lead to fraudulent

[87] The literature that does exist describes the effects of corruption on issues of legitimacy and distrust of public institutions (for example Anderson and Tverdova, 2003).

documents and provide the appearance that laws are being enforced can therefore benefit state legitimacy. Indeed, the early literature on corruption argued that there were some potentially positive benefits from corruption, such as promoting political stability (Huntington, 1968; Leys, 1965), arguments that have since been largely discredited (Seligson, 2002). However, the benefits of corruption to state legitimacy may only be the case when the underlying illegal activity is not exposed, or when the illegal activity itself has a broader legitimacy, despite being illegal. For example when the regulations themselves are perceived to be poor, or fail to support local interests, activities that bypass legal requirements may have a broader legitimacy. Secondly, corrupt payments made to key individuals during the process of socialisation can also lead to greater local support for a project. Furthermore, legitimacy can affect corruption, when for example the legitimacy of a particular idea or project, such as a conservation project, may be more legitimate and be a higher priority than activities that provide an opportunity for corruption.

This draws attention to the broader relationships that support and demand corrupt exchanges. One of the dominant aspects of this in the literature is the issue of patron-client relationships and networks (Alan et al., 2007; Kolstad and Søreide, 2009; McCarthy, 2002a; Perera-Mubarak, 2012). As described above, patronage refers to the ways in which an official's access to rents is used to secure political power (Kolstad et al., 2008) and has been documented at all levels of government, from networks involving presidents and national government officials (see Dauvergne, 1997), down to the micro-level politics of resource access and benefit distribution within a village (see McCarthy, 2002b). Generally, there are three characteristics that are used to identify patron-client relationships: i) power is unequal; ii) the relationship is based on reciprocity; and iii) it is based only in community norms (Kaufman, 1974, p. 285). Research has shown that the relationships developed in patron-client systems can be very resilient, and can form vast networks as a patron in one relationship may be a client in other relationships (for examples see the contributions to Aspinall and van Klinken, 2011b).

There are some clear examples from my research of the existence of patron-client relationships and systems of patronage. For example, elected officials in both countries

relied on their authority to award licenses in order to secure finances for election campaigns. However, a key feature of the data that emerged from my theory was about how the relationship between government officials and companies was built on mutual dependency. This is in contrast with Kaufman's assertion that patron-client relationships are built on unequal power. That is, the relationship between commercial enterprises and government officials that emerged from this research is arguably more equal. Payments between different actors are negotiated, demonstrating that both parties have different power and legitimacy to demand or pay such bribes, which points more strongly to the issue of reciprocity in patron-client relationships. Kauffman's third characteristic of patron-client relationships, that they are based only on community norms, however, is perhaps more complicated.

There has been much written about the community norms and social exchange elements of corruption (Cartier-Bresson, 1997; Larmour, 2008; Larmour and Wolanin, 2001b). The early versions of this were tied to culturally relativistic arguments, debating whether culturally appropriate gift-giving could be distinguished from corrupt exchanges. Indeed, this literature saw some types of corruption as extensions of the cultural norms of power relations (Larmour, 2008). Whilst this cultural relativism has been largely rejected (for example see Pope, 2000), cultural aspects have been persistent in the research on corruption, particularly in relation to norms of compliance and informal systems of interaction. Whilst norms of non-compliance and negotiation over regulations were clearly evident in the findings from my research, the systems of mutual dependency highlight the important interaction of formal and informal structures that have evolved to demand corrupt payments. That is, rather than focusing on issues of long-held cultural practices, a dominant driver of corruption from this thesis were the issues of recruitment, election and poor quality regulations.

This idea of the interaction between historical factors, state regulations and social norms points to the institutionalised nature of corruption. That is, in contrast to the individualist or relationship-focused conceptions of corruption, there has been a growing body of literature focused on understanding and analysing the complex institutions that support and demand corrupt exchanges (Klooster, 2000; Levin and Satarov, 2000; Robbins, 2000).

The key idea of much of this literature is that corruption is a particular type of extra-legal institution. However, the findings from this research highlight how legality is a key component of the institutions of corruption, as the authority of state institutions provides a key value that is exchanged. A similar argument was made by Robbins (2000), who, in describing corruption as the institution of natural resource management, argued that the imposition of state rules on communal systems is one of the key factors affecting the institutions of corruption in natural resource management. Robbins defines corruption in natural resources as 'a system of normalized rules, transformed from legal authority, patterned around existing inequalities, and cemented through cooperation and trust' (Robbins, 2000, p. 424). He goes on to describe how complex and pre-existing social and gender structures and legal arrangements affect the institution of corruption in the management of a state wildlife sanctuary in Rajasthan, India. He argues that corruption is not the absence of rules, but is instead the presence of alternative rules, particularly rules that are based on social relationships. Indeed, Robbins' description of a variety of factors that affect how formal laws are interpreted and implemented in corrupt conditions is supported by the arguments presented in this chapter and the previous one.

However, there are also aspects of this thesis that provide some qualifications to the arguments made by Robbins. Specifically, he states that corruption 'in natural resource management is defined as the use or overuse of community (state, village, city, etc.) natural resources with the consent of a state agent by those not legally entitled.' (2000, p. 425). The results of this grounded theory suggest that firstly, although there are types of corruption that involve actors who are not legally entitled to access resources, there are also many corrupt exchanges that occur while managing natural resources that may include actors who are legally entitled to access resources. There is a need to further identify and distinguish these different types of corruption in the management of natural resources. Secondly, one of the arguments of Robbins' analysis is that corruption results in inherently unsustainable resource exploitation. This may be the case in the examples provided by Robbins, which focused on village-level corruption and access to protected forests. However, by focusing on corruption between commercial operators and state officials, the findings of my research suggest that corruption does not always have

negative impacts upon the process of resource exploitation. That is, where corrupt exchanges are made to speed up paperwork, for example, this may not affect the ultimate exploitation of the resource. I return to develop this idea further in the next chapter, but here I would like to note that corruption at a commercial level may have a different nature and impact than the type of corruption described by Robbins (2000).

6.5 Conclusion

This chapter has presented the results of the grounded theory of corruption in Indonesia and PNG. The core process of this theory was the same as that presented in the previous chapter on forest governance. It is the process of negotiating if and how regulations are implemented. The focus of this grounded theory was therefore about how corrupt exchanges affect this negotiation. The key processes identified include how corrupt exchanges affect the prioritisation of different interests, and how corruption affects the relationships between different actors. The focus of the latter was on how broader (informal) institutions work to support, and demand, corrupt exchanges. These different relationships and prioritisation portray a more integrated conception of corrupt exchanges than is offered by disciplinary-specific descriptions of corruption. Furthermore, the research demonstrates how corrupt exchanges, and the broader systems that support them, operate in the context of forest management. Ultimately, this chapter, and the one before it, provide the in-depth understanding of local-level governance and corrupt processes, and highlight their complexities. These grounded theories provide a basis to analyse if corruption and poor governance contribute to deforestation and forest degradation in Indonesia and PNG. This analysis is presented in the next chapter.

Chapter 7

Corruption, poor governance and the contribution to deforestation and forest degradation

7.1 Introduction

Corruption and poor governance are widely cited to be contributing to the failures of global forest management and the resultant deforestation and forest degradation (for example Saunders and Nussbaum, 2008; World Bank, 2006b; WRI, 2003). Whilst there has been considerable research into the impacts of poor governance and natural resource exploitation on broader economic development (for example Bulte et al., 2005; Mauro, 1995; Sachs and Warner, 2001) and well-documented problems of corruption and poor governance in the forest sectors of many countries (Barnett, 1990a; Global Witness, 1995; Smith et al., 2003a; World Bank, 2006b), there has been less focus on how these governance factors impact upon forest resources themselves. This chapter contributes to this body of literature by qualitatively analysing the impacts of corruption and poor governance on the process of forest management in Indonesia and PNG. Specifically, it answers a key research questions of this thesis: Does corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? And if so, how?

In order to address these questions, this chapter integrates the findings from the previous two grounded theory chapters and the literature on forest corruption and governance and applies these ideas to analyse the process of deforestation and forest degradation in Indonesia and PNG. Indonesia is the main case for this research. This is because Indonesia has one of the highest rates of deforestation globally, and has also had a well-documented history of corruption and poor forest governance (for example Barr et al., 2010a; Dauvergne, 1994 and see chapter 3 ; McCarthy, 2006; Poffenberger, 1997). The second, and smaller case comparison is with PNG. As I explained in Chapter 2, the comparison

between Indonesia and PNG is not a comparison of the entire country. Rather, specific features of the governance process were used as the basis for comparison.

This chapter begins with a two-part review of the literature. The first part of the review focuses on the literature about corruption and poor governance and its impact on the environment. Specifically, this review identifies the key gaps in the existing research on corruption and poor governance in the forests. The second part of the review focuses on describing the problems of deforestation and forest degradation in the literature. By incorporating issues of sustainability and environmental justice I develop more nuanced criteria for assessing the impacts of corruption and poor governance on the forests. Following these reviews, the second section outlines the various mechanisms by which corruption and poor governance affect decision-making about forests. Specifically, I analyse four stages of forest management (land-use planning, licensing, monitoring and enforcing and the distribution of benefits) and identify the different types of corruption or problems of governance that might affect decision-making in that stage and how such decisions may impact on the forests. The analysis presented here identifies many potential and complex mechanisms by which corruption and poor governance may impact on forests. However, the exact impact on the forests is often very difficult to determine. This is because many of the impacts of corruption and poor governance are indirect, dependent on a variety of other conditions or negligible. I argue, however, that rather than necessarily contributing to the overall quantity of deforestation and forest degradation, there is often a clear impact of corruption and poor governance on the quality of the decision-making process, contributing to the wider problems associated with deforestation and forest degradation. In the final section I identify several key implications of this analysis for the broader literature on forest governance.

7.2 Governance, and quantity and quality of deforestation and degradation

7.2.1 Governance and deforestation in the literature

There are three interrelated streams of research into corruption, poor governance and the environment. The first investigates the nature of corruption and the nature of corruption

in natural resource management. I described the key aspects of this literature in the previous chapter, focusing on the difference between economic conceptions of corruption, which are based on rational-choice models (Rose-Ackerman, 1975) and the institutional perspective, which is based on an understanding of social norms and relationships (Robbins, 2000).

The second stream of research, which is largely an extension of the economics perspective above, shows how corruption in the management of natural resources impacts upon the economy of a country. Specifically, this stream of research has focused on corruption as one factor contributing to the so-called 'resource curse'— the paradoxical phenomenon whereby countries with significant natural wealth appear to be growing slower, economically, than countries without such natural wealth (Sachs and Warner, 2001). The logic of the argument is that natural resources attract corruption (Liete and Weidman, 1999) and that corruption is linked to lower economic growth (Mauro, 1995), so corruption may help explain why countries with abundant natural resources often struggle to translate natural wealth to economic growth (Kolstad and Søreide, 2009; Kolstad and Wiig, 2009). Although there may be long-term (indirect) impacts of low economic growth on the management of forest resources, this stream of research arguably provides few insights into if, and how, corruption may impact upon the management of resources themselves.

It is the impact of corruption on the environment itself that is the focus of the third stream of research. Higher levels of corruption have been shown to be linked to higher levels of a variety of pollutants; corruption also affects the stringency of environmental regulations and the implementation of environmental regulations (Barbier et al., 2005; Damania et al., 2003; Lopez and Mitra, 2000; Welsch, 2004). The mechanisms identified by these studies include direct impacts, where corrupt payments are made to allow companies to pollute or to change regulations (for example Bulte et al., 2007; Damania et al., 2003). There are also indirect mechanisms, where, for example the impact of corruption on emissions was due to its impact on economic growth (for example Welsch,

2004).[88] Whilst the findings from each of these studies may only be indirectly relevant to understanding if and how corruption contributes to deforestation and forest degradation, the findings from these studies do highlight the fact that there can be many intervening factors which affect whether increased corruption leads to more environmental harm.

The importance of understanding these intervening factors is evident in the research that has focused specifically on corruption and poor governance in forests. I have, in the previous chapters, introduced several studies that have specifically investigated the relationship between corruption and deforestation and forest degradation (including Barbier et al., 2005; Bulte et al., 2007). Barbier and colleagues (2005) found that corruption increased the rate of resource conversion (deforestation) across middle and low income forested countries. The effect of this was dependent on terms of trade (Barbier et al., 2005). There are some problems with these findings, specifically that the research by Barbier and colleagues potentially suffers from omitted variable bias (Tacconi, 2011). However, the important point here is how the findings from Barbier and colleagues identify several important intervening factors, such as terms of trade. That is, whether corruption led to more deforestation was dependent on the terms of trade in that country. Other papers presenting cross-country econometric analysis of the relationship between corruption and the level of deforestation have supported the main finding of Barbier and colleagues, that higher levels of corruption are associated with more deforestation, but the intervening factors are different. For example, in a study across nine Latin American countries, Bulte and colleagues (2007) found that corruption contributed to deforestation through the resulting impact on efficiency in the agricultural sector. That is, farmers traded bribes and political contributions for land-use subsidies. In order to get a greater share of these subsidies, farmers, particularly large-scale farmers, adopted inefficient modes of production that ultimately led to higher rates of conversion of forested land to agriculture. I return to analyse these studies in more detail in the next

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[88] This is through the Environmental Kuznets Curve (EKC), that is a proposed inverted U-shaped relationship between pollution levels and economic growth. Higher levels of corruption lead to lower economic growth, which in turn worsens pollution levels following the EKC.

section, but it is clear from this that there are a variety of factors that affect how corruption may impact upon forests.

The focus of this chapter is therefore three-fold. Firstly, in contrast to the cross-country quantitative studies above, this chapter focuses on identifying and analysing the intervening factors at a local scale, in Indonesia and Papua New Guinea. Specifically, the analysis seeks to identify the conditions under which specific acts of corruption may lead to deforestation and forest degradation. Secondly, rather than the broad studies described above, I isolate different stages of forest management, to better detail how different intervening factors may be involved. The focus is on providing a more nuanced analysis of if and how corruption and poor governance contribute to deforestation and forest degradation. Finally, this analysis includes consideration of how corruption and poor governance contribute to the wider problems associated with deforestation and forest degradation. That is, the problem of deforestation and forest degradation is not solely about the amount of forestlands converted, as there are many wider problems associated with unsustainable forest management or environmental injustices. I focus on understanding the mechanisms by which corruption in forest management may also contribute to these broader social-developmental problems.

7.2.2 Quantity and quality of deforestation and forest degradation

Before analysing the impacts of corruption and poor governance, this section provides a more in-depth description of deforestation and forest degradation and includes an analysis of the wider problems associated with deforestation and forest degradation. As already noted, deforestation generally refers to the permanent conversion of forested lands to non-forest uses (Schoene et al., 2007),[89] and forest degradation is broadly understood to be 'the long-term reduction of the overall potential supply of benefits from the forest, which includes carbon, wood, biodiversity and other goods and services' (Schoene et al., 2007, p. 10). Whilst these definitions reflect many of the standard

[89] There are different definitions (see Schoene et al. 2007). These definitions vary dependent on factors such as whether the deforestation is caused or maintained by human activity, the time scale of 'permanent' and what constitutes alternative land uses.

features of definitions of deforestation and forest degradation, there are nonetheless complex and often competing definitions of these two processes. Definitions vary, for example, over whether the conversion must be the result of human activity, or in relation to forest degradation whether the 'long term reduction' in one value of forest may be traded with the enhancement of other values. For example, maintaining the benefits of carbon or timber may come at the expense of biodiversity (Chisholm, 2010). Such definitional challenges have implications for understanding how much deforestation and forest degradation has occurred and highlights the difficulty in determining what the problem(s) of deforestation and forest degradation may be.

In relation to the first implication, definitional discrepancies contribute to tensions over measurements of the amount of deforestation and forest degradation. According to the United Nations Food and Agriculture Organisation (FAO), in the decade to 2010, over 19 million and almost 1.5 million ha of forestlands were converted in Indonesia and PNG respectively (Table 7.1). Other sources have reported higher and lower amounts of deforestation and forest degradation in both countries. In the case of PNG, for example, differences in definitions of deforestation have contributed to debates about the amount of deforestation in that country. Shearman and colleagues calculated that since 1970 almost 8 million ha of PNG's forests had been deforested. However, their findings were criticised for, amongst other things, failing to account for the natural regeneration of both logged forest and forests that had been cleared for shifting agriculture (Filer et al., 2009). As such, Filer and colleagues argued that the rate of deforestation and forest degradation in PNG is '*much lower*' than that calculated by Shearman and colleagues. In Indonesia, definitional issues impact calculations of the amount of deforestation and affect considerations of who is causing that deforestation. Similar to the example from PNG, including the shifting agricultural practices of communities (where cleared forests are often left fallow for extended periods) in the definition of deforestation in Indonesia means that the rate of deforestation calculated is higher than if the shifting agricultural practices are not seen to be deforestation (Resosudarmo, 2002). And this definition means that the activities of communities, rather than commercial operations or governments,

are driving deforestation. Definitional shifts are also important for understanding who or what is considered to be doing the deforestation and forest degradation.

Table 7.1: Amount and rates of deforestation in Indonesia and PNG

	Forest area (1 000 ha)				Annual change rate					
					1990-2000		2000-2005		2005-2010	
Country/area	1990	2000	2005	2010	1 000 ha/yr	%*	1 000 ha/yr	%*	1 000 ha/yr	%*
Indonesia	118545	99409	97857	94432	-1914	-1.75	-310	-0.31	-685	-0.71
Papua New Guinea	31523	30133	29437	28726	-139	-0.45	-139	-0.47	-142	-0.49

Source: FAO, 2010

This leads back to the second implication described above, where different definitions affect if deforestation and forest degradation are seen as a problem. That is, whether deforestation is a problem is, in part, determined by what is driving the changes to the forest and what the ultimate wider impacts may be. There are many drivers of deforestation and forest degradation, including proximate drivers and underlying causes (Geist and Lambin, 2002).[90] Often a main driver of many activities that lead to deforestation is the economic benefits associated with such activities. For example, forestry in PNG is frequently justified due to the fact that it is a major contributor to PNG's economy, both in terms of foreign exchange and by providing employment to 10 000 people (PNG FA, 2009). Such economic benefits normally constitute a significant justification for continuing the activities that contribute to deforestation and forest degradation. The problem of deforestation is therefore not necessarily about the deforestation itself; rather, deforestation is seen as a problem due to the many wider social and environmental problems associated with forest cover change.

In relation to the latter, there are many documented negative environmental impacts from deforestation and forest degradation. This is because functioning forest ecosystems are often sites of high biodiversity (Myers et al., 2000; Wildburger, 2009), and contribute to global and local hydrological cycles (Bruijnzeel, 2004; Locatelli and Vignola, 2009), soil stabilisation, global and local nutrient and chemical cycles including carbon sequestration

[90] Proximate causes include agricultural expansion, or urban development. Underlying causes include economic and market factors that place higher price on alternative land uses (Geist and Lambin, 2002).

(Houghton, 2003; Lal, 2005; Thomson et al., 2008) and a great many other valuable ecological, economic and social services (Costanza et al., 1998). Deforestation and forest degradation, by definition, result in the damage or loss of many of these important environmental services. Indeed, tropical deforestation has been shown to contribute to biodiversity loss, soil erosion and greenhouse gas emissions (Fayle et al., 2010; Finn et al., 2009; Martínez et al., 2009). That is, from an environmental perspective, deforestation and forest degradation are a problem because of their contribution to these wider environmental problems.

This is not to say that all deforestation and forest degradation has the same contribution to these wider problems. There has been considerable amount of research and practice seeking to better manage activities that lead to deforestation and forest degradation to enable the economic benefits, but to reduce the wider harm. There have been various manifestations of this, such as reduced impact logging (Putz et al., 2008) or establishing protected conservation areas. One of the most prominent versions of this is the literature on sustainable forest management (SFM). Drawing on the principles of sustainable development, the notion of sustainable forest management has come to dominate much literature on forest management around the world. 'Sustainable forest management aims to ensure that the goods and services derived from the forest meet present-day needs while at the same time securing their continued availability and contribution to long-term development' (FAO, 2008). Although discussions of sustainability have dominated literature on forest management (Dieterle, 2009; Kishor and Belle, 2004; Pearce et al., 2003; Siry et al., 2005), it remains a contentious idea, and has been difficult to achieve in practice (Pearce et al., 2003).[91] Despite the definitional and practical challenges, issues of sustainability remain key to understanding the problem of deforestation and forest degradation. It is therefore important to understand how corruption and poor governance is affecting decision making about forest use, in a way that inhibits achieving sustainable outcomes.

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[91] It is difficult to measure, but the ITTO estimates that until 2010, 30.6 million ha of production permanent forest estate was considered to be under SFM, which is an increase of 20% from 2005 (Blaser et al., 2011).

There are also wider problems associated with deforestation and forest degradation that, more directly, affect humans. Research has pointed to a variety of both positive and negative impacts from activities that contribute to deforestation and forest degradation (Cerutti and Tacconi, 2008; Forest Trends, 2006b; Mahanty et al., 2013; Tacconi, 2007a; Vedeld et al., 2012). The problem of many activities that contribute to deforestation is not solely that the deforestation and forest degradation occurs, but that it occurs in a way that is not beneficial for locals, or that provides no long-term security of livelihoods. One of the key criteria reflecting these ideas has to do with the principles of environmental justice. The environmental justice movement and theory emerged in response to perceived skewed distribution of goods and risks from environmental activities (Kaswan, 1997). Because environmental justice deals with illusive concepts such as fairness or rights, similar to sustainability, it is often a normative and subjective concept. The integration of the principles of environmental justice and sustainability therefore provides a base for developing a framework to evaluate the outcomes of deforestation and forest degradation from a more normative perspective. There are two key aspects of environmental justice that I use here; the first is distributive justice, the second procedural.

Based on the moral philosophy of the consequentialists, distributive justice is served if goods and risks are distributed according to some definition of equity or fairness (Rechtschaffen et al., 2009). In the case of forest management in both Indonesia and PNG, there are many examples where activities that lead to deforestation and forest degradation have failed to meet conditions of distributive justice (Chapters 3 and 4). Generally, many of the costs and benefits of activities that lead to deforestation and forest degradation are not born by the same actors. For example, when forest areas are degraded through harmful logging practices, the burden of environmental harms, such as erosion or damage to watershed is likely to be felt by local communities. The majority of the economic benefits accrue to logging company directors and maybe national tax revenues (for example see Angelsen and Wunder, 2003; McCarthy, 2006; Smith and Scherr, 2003; Vedeld et al., 2012; Wright et al., 2007). Understanding the contribution of

corruption and poor governance to distributive (in)justice, is therefore important in understanding the ultimate impact of deforestation and forest degradation.

The second and related aspect of justice is procedural environmental justice. Procedural justice is the right '...to equal concern and respect in the political decision about how these goods and opportunities are to be distributed' (Rechtschaffen et al., 2009, p. 9). The actual outcome of the decision—in terms of who gets what—is not relevant to achieving justice, as long as the procedures for decision-making are just. Initially, the distributive injustices were seen as a consequence of the failure of the processes of decision-making to actively consult and negotiate with those who have a right to be consulted and negotiated. Again, in the forest sector this is predominantly a concern for local communities in forest areas. Around the world, forest ownership is dominated by states. In 2005, it was estimated that 80% of forests worldwide are under state ownership (FAO, 2010). In the management of state forests, communities have historically been disempowered from decision-making (for example Peluso, 1993) and there has been a worldwide push to include communities as a means to improve forest management (Castro and Nielsen, 2001; Gray et al., 2001; Growing Forest Partnerships, 2011; Reed, 2008; Zulu, 2008), despite the many challenges of doing so (Agrawal and Gibson, 1999; Blaikie, 2006). Understanding the processes of decision-making according to principles of procedural justice, and how different types of corruption or poor governance may affect these principles, is therefore important in order to understand the wider problems associated with deforestation and forest degradation.

By including criteria of sustainability and environmental justice it becomes clear that not all deforestation and forest degradation is the same. The next section analyses how different types of corruption and poor governance may impact upon different stages of forest management. For each stage I focus on understanding if and how corruption and poor governance lead to not only more deforestation and forest degradation, in terms of area, but also contribute to the wider problems identified here.

7.3 Poor governance, corruption at different stages of forest management

The four stages of forest management considered in this section are land-use planning, licensing, monitoring and enforcing regulations and the distribution of benefits. Whilst there are of course other stages where relevant decisions are made, these fours stages cover a variety of decisions that are most relevant to understanding the process of deforestation and forest degradation. Each sub-section provides an analysis of the ways in which corruption and poor governance affects decision-making, then how this may affect forest management, including how corruptions affects sustainability and environmental justice.

7.3.1 Land-use planning

The process of forming land-use plans involves the negotiation of multiple interests, as land-use plans, in principal, determine where forest cover should be protected, where timber can be harvested, and where it can be cleared. Zoning restrictions also determine what activities can replace forest cover. Land-use plans can need to consider various spatial scales, such as protecting local-level community gardens or spiritual places, as well as much larger ecological scales, such as those governing watersheds. Considerations for both short and long-term needs can also be incorporated in land-use plans; indeed, much has been written about the importance of planning for long-term sustainability (Kangas, 1994; van Lier, 1998) and there have been many projects seeking to develop equitable and participatory planning processes—reflecting some of the principles of environmental justice (Buchy and Hoverman, 2000; Kangas, 1994; Tokede et al., 2005; Vainikainen et al., 2008). The process of land-use planning is therefore vital consideration for not only how much deforestation occurs, but how the multiple benefits and costs are balanced and mitigated. The literature and the results of my research have identified several different ways in which corruption and poor governance can affect the process of land-use planning.

Firstly, corrupt payments can result in forested land being re-zoned to alternative uses. Whilst there were no specific examples of this from the respondents, there have been

other cases reported in the media in Indonesia. For example, in 2009 a member of Indonesia's national parliament was charged with accepting a bribe in exchange for re-zoning forest lands to a conversion zone (Rayda, January 28, 2009). Although such direct cases exist, the results of the grounded theories presented in the previous chapter suggest that the link between corruption and land-use planning is indirect and multifaceted.

Specifically, corruption and poor governance can influence land-use planning because it changes the priorities of those involved in decision-making so that land-use planning becomes a tool for positioning. As noted in the previous chapter, actors engage in different strategies to position themselves to gain control over certain decisions, and this position can be used as a means to extract payments. Positioning to extract future payments (those associated with licensing) is one explanation for the current disputes over land-use planning in Central Kalimantan. On the one hand is the Ministry of Forestry (hereafter, the Ministry), that seeks to maximise the area of land that remains within the legal forest estate—regardless of actual forest cover. This is evident in the Ministry's focus on the TGHK as land-use plan, where in Central Kalimantan, 11.6 million ha of land is within the forest estate. On the other side are the district governments, who want more land zoned outside the forest estate where they have greater control. The Provincial Land-Use Plan (*Rencana Tata Ruang Wilayah Propinsi,* RTRWP) assigned only 8.4 million ha to the forest estate and is preferred by district and provincial governments. There are other factors that also affect this negotiation, some of which I identified in Chapter 3. However, it is clear that the conflicts over assigning land-uses can be impacted by positioning strategies, particularly positioning for future corrupt payments.

In PNG, the use of land-use plans to establish future opportunities for corrupt exchanges is less prominent, partly because of the lack of centralised Ministerial planning. Many of the broad land-uses have already been allocated, so the ongoing planning process is more localised to within-concession planning. This includes activities like preparing the development options study (where alternative land uses are analysed and the results (supposedly) presented to landowners), or surveying forest areas to identify sites of high biodiversity conservation. Corruption and poor governance can affect both of these processes, by preventing officials from conducting such surveys or preparing these plans.

Indeed, there is considerable evidence of the failure of officials who are meant to conduct the surveys to identify and set aside areas that should technically be conserved (Review Team, 2004). There are many reported causes of such failures, including factors such as incompetence and mismanagement that are often associated with corruption, and factors such as conflicts of interest. These conflicts of interest are the consequence of a lack of capacity by the government to financially support officials in the field. This means that in order to have funds to conduct the surveys of the land, government officials must rely on prospective developers to provide transport, accommodation and food. The extent to which this may affect land-use planning is difficult to determine, but there is some evidence that this could result in officials failing to adequately survey areas or plan potential alternative uses (Review Team, 2004). However, again it is difficult to determine, in practice, whether corruption or other challenges such as negligence or lack of skills may also contribute to such failings.

Impact on forests

The impacts on the forest from this planning process can be difficult to determine, because it depends on if and how the plans are implemented. However, assuming that the plans are implemented, there are various ways in which corruption and poor governance, particularly the issue of positioning, can impact upon the forests. Beyond cases where corruption payments directly lead to the re-zoning of forestlands to alternative uses, the impact of corruption in land-use planning on forests is often ambiguous.

Firstly, positioning can affect the amount of land zoned for different activities, and thereby contribute to more deforestation and forest degradation. This is clear from the situation in Central Kalimantan, where district governments sought to allocate more forest area to conversion. However, land-use planning is also important in relation to reducing the wider negative impacts of deforestation and forest degradation. Land-use planning can work to balance the multiple interests associated with forest use, by allocating land to development in a way that maximises economic opportunities but also enables the identification of areas that need to be protected.

Secondly, positioning also affects where the land may be zoned and leads to a prioritisation of corrupt interests over the need to balance multiple interests and long-term considerations. That is, political needs, associated with the need to recover campaign finance debt, are prioritised over broader environmental concerns. The importance of land-use planning to reduce the wider problems of deforestation and forest degradation is that clear land-use planning can work towards balancing multiple interests; clear land-use planning allocates land to development in a way that maximises economic opportunities but also enables the identification and protection of areas of high biodiversity, watershed cover, deep peat and so on. Effective and participatory planning processes can help to reduce some of the negative impacts of activities that lead to deforestation or forest degradation. However, when interests are dominated by corruption the priority is given to establishing opportunities for future bribes. The implications of this is that long-term sustainability and environmental quality become less of a priority, leading to higher amounts of deforestation and forest degradation and contributing to the wider problems associated with such activities. Specifically, the concern is not just how much, but where such activities are allowed to occur. And there is some evidence that corrupt interests have led to re-zoning areas for development that should be conserved.

In one case of this re-zoning reported in the media, bureaucratic ineffectiveness, corrupt interests and overlapping land zoning led to Indonesia's first REDD+ project almost being abandoned after 9000 ha of the area of (reportedly) deep peat was allocated to a local oil palm company (Fogarty, 2011). Whilst in this case the companies responsible for the REDD+ project were eventually able to recover this area and continue with their REDD+ project, the example does demonstrate how corruption can lead to many wider problems, in this case degradation of peat land and the associated emissions. However, as this case also demonstrated, it is often difficult to distinguish the impacts of corruption from the much broader governance context, which in the case above included historically overlapping plans and Ministerial changes, to name a few.

It is therefore difficult to determine how corruption and poor governance more generally have affected the forests because the corrupt interests also align with other interests and

challenges. For example, respondents throughout this research focused on the priority of development, and intimated that environmental concerns would be the focus later. Such claims support the idea that the economic benefits of activities that lead to deforestation continue to be prioritised over the longer-term environmental costs. Also, it is important to understand that much of the land-use planning that is happening now is retrospective, a consequence of decades of poor management and lack of capacity. This means that what is happening now is an attempt to reconcile the formal regulations, the informal needs and the existing forest cover and environmental condition. This attempt highlights the fact that even though positioning for future corrupt payments is partly a driver of poor quality process in planning and has associated negative impacts, it is not sufficient to explain all of the problems.

Finally, one of the key impacts of this corruption and poor governance in the planning stage is with respect to environmental justice, including participatory justice and distributive justice. Firstly, in relation to principles of environmental justice and to some degree SFM, there is a focus on the participation of those affected by decisions in planning (Oestreicher et al., 2009). The idea is that stronger participation can contribute to more effective and sustainable management of forest resources. This participation includes issues like identifying the key cultural or spiritual places, but also reflects principles of justice in relation to agency and ownership of projects, particularly for conservation projects (Kellert et al., 2000; Lele et al., 2010; Oestreicher et al., 2009). It is clear from the above discussion that corrupt interests result in a lack of participation by different actors—often communities in forest areas. This operates in two ways. Firstly, the lack of participation occurs because those who are elected to represent the interests of the community more broadly are in fact beholden to the companies and work harder for those interests. Indeed this idea has been discussed in the literature on the impacts of corruption on democracy (Warren, 2004, 2006). Warren argues that corruption affects two main principles of democracy—participation and transparency—and claims that corruption in a democracy is best understood as 'duplicitous exclusion'. Secondly, corrupt interests result in a lack of participation because local communities are not directly involved in the planning process; the political and economic interests dominate decision-

making. There are also implications for distributive justice, as the failure to appropriately protect significant areas increases the burden of harm on local communities.

There are, therefore, a variety of different mechanisms by which different types of corruption and poor governance impact upon planning activities that contribute to deforestation and forest degradation. This can contribute to both increased quantity and decreased quality of deforestation and forest degradation. Corruption in the process of licensing can increase the area of deforestation and forest degradation because it encourages those who benefit to increase the amount of land that is possible to develop. It also contributes to wider environmental problems associated with deforestation and forest degradation, because the interests associated with licenses tend to be shorter term (matching political cycles) and within boundaries that do not reflect ecological boundaries. This means that poor governance, conflicts of interest and the capture of decision-making by the local elite can lead to increased environmental harm, as areas that should be protected are not zoned accordingly. It also creates procedural injustice as communities are not consulted. This shows that different types of corruption interact across different activities and contribute to both increased amount of area deforested or degraded but also to increased injustices. The outcome in terms of the quality of the deforestation and forest degradation is also negative.

7.3.2 Licensing

Land-use planning is important because it determines where and how different activities can (legally) occur. The next stage that can be impacted by corruption and poor governance has to do with the process of licensing different activities. In both countries, there is a high prevalence of corruption and poor governance in the process of licensing (Chapter 6); indeed, corruption in the licensing stage of forest management has been a well-documented problem in many countries (Gray, 2002; Kolstad and Søreide, 2009; Poffenberger, 1997; Soreide, 2007). Much of the existing research, including the findings presented in the previous chapter, has focused on the systems and drivers of corruption in licensing, describing systems where licenses are awarded in exchange for support with political campaigns. Whilst this is no doubt a key driver of corruption in licensing, the

focus of this section is on how corruption in this stage can affect forest resources. Four general impacts were identified. First, corruption and poor governance can lead to more licenses being awarded, or overlapping licenses. Second, it can lead to preferable treatment for one company over another. Third, corruption and poor governance can affect the negotiation over conditions of the contract and, finally, it can impact upon the speed with which licenses are awarded.

Corruption can lead to more licenses being distributed because of the interests involved in corruption exchanges. Corrupt interests are built on the opportunity to award licenses, as these are key areas for recovering debt or repaying favours from campaign contributions. In corrupt conditions, the expectation is that more licenses will be awarded and there is some evidence of this in the literature. In a detailed study of timber booms across four countries, Ross (2001) found that, in the case of Indonesia, the corrupt systems associated with the distribution of licenses led to over-allocation of concessions by as much as five times the estimated sustainable national yield (Ross, 2001). In the early period following decentralisation in Indonesia, with increased competition over the authority to award licenses, there were extensive overlaps of concession areas and an explosive increase in the amount of logging (McCarthy, 2004; Smith et al., 2003a). The findings from the present research do support this idea, that corruption can lead to more or overlapping licenses being awarded, but the extreme illegal activities in awarding licenses documented during the early decentralisation period were no longer seen as common. The respondents instead described a need to have a more solid legal basis, a claim that is supported by their efforts to develop their own land-use plans. Allocating more area to specific land-uses enables them to justify the licenses they award. This is not to say that there are no areas allocated illegally because of corruption, as this is also occurring (Chapter 6). Rather, due to the increased scrutiny within government and by outside actors, there are stronger interests associated with the appearance of legality. This suggests that corrupt interests may encourage officials to award more licenses, but the impact on forests is likely to be dependent on other factors such as the land-use plan.

Secondly, corruption and poor governance can facilitate preferential treatment, so that one company is given a concession over another company. The consequence of this

corruption can be complex, depending on factors such as the relative quality of competing companies. Where preferential treatment is for companies of a similar quality, this will have a different impact on the forests than where payments lead to concessions being awarded to companies that lack experience or capital. However, it is the latter situation that is most commonly described in the literature and by respondents in my research. The current problem with the allocation of the Special Agriculture and Business Leases (SABL) highlights how this operates. That is, despite the SABL concessions being designed to promote agricultural development, government officials in the forestry department reported how companies with insufficient experience in agriculture were being awarded these licenses. These companies were commonly timber companies, and the plans they provided as part of the licensing process were plans for timber operations that failed to include planning for the infrastructure necessary for agriculture, such as processing facilities (Government representative. Meeting 5, 15 May 2012). Other allegations include companies receiving licenses despite having insufficient capital, instead relying solely on their access to timber in the area to finance their 'proposed' agricultural operations (Government representative. Meeting 5, 15 May 2012). Yet these companies were seen to get preferential treatment because of their (corrupt) relationships with politicians. The consequence for forests from this corruption by preferential treatment, however, will be determined by the relative quality of the company and other factors, such as the monitoring of operations, which are dealt with in the next section.

Thirdly, corruption and poor governance has been shown to impact the conditions within specific license contracts. As detailed in Chapter 4, contractual conditions of licenses—such as timber licenses—in PNG are developed throughout the process of awarding licenses. Within a single proposed forest management area (FMA) all of the registered landowner groups, as well as local government departments, are meant to negotiate with prospective developers over what type of development the landowners would accept and under what circumstances they would accept it. This includes negotiations over some royalties, infrastructure and other commitments. In practice, corruption and the capture of authority, particularly by landowner company representatives, has led to many problems with this process. In the past, this led to unjust contractual conditions. For

example, one contract that was signed by landowner company executives made the landowner company legally responsible for compliance with all environmental planning and regulations, despite the landowner company having no actual activities with respect to the logging operations (Barnett, 1990a). Whilst efforts to reduce the discretionary power of landowner company executives have been made, these executives still have a key role in representing the communities (Filer, 2007), and in negotiating contractual conditions. Incidentally, the abuses are also evident in the process of registering ILGs, as many ILG applications are prepared by self-appointed representatives, paid for by the prospective developer and registered despite the fact that the ILG does not reflect the membership of the actual landowner group (PNG Forestry Review Team, 2001b). This has led to licenses being awarded to companies without the proper consent of the true landowners and with contract conditions that many of the landowners are unsure of. This can also lead to overlapping contracts being negotiated. In a current case in West Sepik, two logging companies have licenses (under the Private Dealings Act) to operate in the same area, because two landowner companies, who claim to represent the people, negotiated directly with the developers. There are also claims on both sides that the other landowner company does not represent the true landowners, and that they are receiving payouts from the respective developer (Interview ILG chairman and village head. March 21, 2012). Corruption can therefore impact upon the actual contractual conditions of licenses, with implications particularly for the distribution of benefits.

Finally, whilst there have been many documented cases of corruption and poor governance in awarding licenses, it is important to note that such payments may be to speed up the application process. That is, corrupt payments are made, not to change any decisions about whether the license is awarded, or to whom, but to influence when the license is awarded. Many company representatives described how they were frequently required to pay bribes in order to speed up the formal process (Chapter 6). This highlights that corrupt payments can be made for a variety of different reasons in the process of licensing, with varied impacts on the forests themselves.

Impact on forests

The different types of corruption in the licensing process can have complex impacts on the forests, with some contributing to more deforestation and forest degradation and others having negligible (direct) impact. Importantly, often the contribution to deforestation and forest degradation is dependent on other factors such as the land-use plan, and the quality of the monitoring and enforcing. For example, in cases where corruption leads to more licenses being distributed, this can lead to more deforestation and forest degradation. However, if those licenses are awarded in areas already zoned for conversion, or in forest areas that have been cleared already, then the number of licenses awarded will not change the ultimate amount of forestlands converted. The contribution to deforestation is also dependent on whether the land zoned as forest area is in fact forested. For example, as described in Chapter 3, following the development of the Mega Rice project in Kalimantan, over 1 million ha of peat forest was cleared and the peat-soil drained. When the rice project failed, much of the area was converted to commercial oil palm plantations. However, following a court decision in 2006, which found that the lands of the ex-mega rice project had never been legally annexed from the forest estate, the area was returned to the legal forest estate. At least one of the commercial oil palm plantations in the area is known to have paid for the license, and given the reported prevalence of the problem, there is little reason to suspect that others had not, which means that at least some (if not all) of the oil palm plantations therefore had paid bribes to secure licenses in to operate illegally in the forest area. However, given the history of land-use, arguably this did not cause the deforestation. This demonstrates that it can be very difficult to argue that any specific act of corruption contributes to deforestation and forest degradation, as there are likely to be complex intervening factors.

However, there are also wider impacts, particularly to do with excessive environmental damage caused by corruption in the licensing process. Corruption, which leads to poorer quality companies being awarded licenses, was reported to have contributed to excessive environmental damage. For example, a government respondent described how a timber company with little experience was awarded a timber concession, but because they did not survey the land before building roads, they ended up building a road that led directly

to a cliff (Meeting 15, Feb 2012). As well as costing the company 30 000 Kina, the government respondent explained that there was also considerable degradation caused by such a mistake. Alternatively, such companies may hire cheaper staff, who do not have the knowledge to be able to comply with the logging codes, leading to logging practices which damage buffer zones and residual timber stands (Forest Revenue Review Team, 2002). Good quality companies are therefore needed in order to be able to sustainably use forests. However, it is nonetheless difficult to determine if the corruption by preferential treatment does result in poorer quality companies being awarded licenses and therefore contributes to wider problems. That is, competing companies may also have had little experience so the payments may have been for preference over a like-quality company, or the failings to comply with the logging code can be a problem of corruption involved in monitoring and enforcing logging codes. Determining these different conditions is therefore necessary in order to be able to say that any specific act of corruption has led to environmental damage.

The third type of corruption above, where corrupt relationships affect the conditions of the licenses, may not lead to more deforestation or forest degradation, but it can impact on achieving procedural and distributive justice. In the case of PNG described above, corrupt relationships between self-appointed landowner representatives and prospective developers contributed to procedural injustices, as those with the right to be engaged in decision-making were not able to access the negotiations. Corruption also affected the conditions for the distribution of benefits, often leading to fewer benefits being allocated to communities and fewer responsibilities to the developers (Forest Revenue Review Team, 2002; Review Team, 2004). The implications being that those communities continue to bear the cost of environmental degradation, with fewer benefits from the extraction of the resources.

Finally, as described above in the example where corrupt payments result in preferential treatment for a similarly experienced company, arguably there are few direct impacts on the forest from 'speed money' corruption. That is, all else being equal, whether a company receives the licenses quickly or in several months is not likely to directly contribute to deforestation or forest degradation. These findings highlight that the

ultimate impacts of different types of corruption in the stage of licensing is therefore dependent on the type of corruption as well as the broader conditions; however, there can be clearer contributions to injustices caused by corruption in this stage.

7.3.3 Monitoring and enforcing

Once the land-uses have been assigned and licenses awarded, the next stage has to do with monitoring the logging, mining or agricultural projects to ensure compliance with operational regulations. With respect to logging, both countries have regulations and codes that specify how logging should occur, including, for example, procedures for surveying timber stock, preparing annual harvest plans, and specifying felling direction.[92] These codes are designed to 'minimise the deleterious impacts of logging' by requiring that the timber harvest is planned and conducted by trained workers (Putz et al., 2008, p. 1428). Mining and agricultural operations are also monitored for compliance with regulations that aim to reduce their impacts on the forests, such as regulations that specify protected areas for biodiversity or watershed protection (see Chapters 3 and 4). Governance conditions can affect if, and how, these regulations are monitored and enforced, with implications for both the amount of deforestation and forest degradation and for the wider problems associated with logging, mining and agricultural development.

Historically, corruption and poor governance has been well-documented problem affecting monitoring and enforcement practices. For example, during the Suharto rule in Indonesia, there was very little incentive to monitor logging practices, as the military and other key political figures benefitted from the profits of illegal logging (Chapter 3). Corruption and poor governance have also been linked to failures to monitor regulations which restrict harvesting protected species, (EIA/Telapak, 2007; Smith et al., 2003a), those which restrict the amount of timber harvested within concession areas, and failure to monitor regulations which seek to protect watershed and buffer-zones (Dauvergne, 1994; Iskandar et al., 2006; McCarthy, 2002b; Palmer, 2001). These cases show that in the past,

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[92] In Indonesia the conditions of the logging are outlined in the Selective Cutting and Planting System (*Tebang Pilih Tanam Indonesia*, TPTI); in PNG, it is under the logging code of conduct.

on one hand, companies' activities were not monitored, because this would decrease the value of the patronage associated with the distribution of licenses (Poffenberger, 1997, p. 456). This is particularly the case where elected officials exchange election support for licenses. On the other hand, those tasked with monitoring, such as the forestry police and military, also received bribes to not report breaches by companies (Poffenberger, 1997). These examples demonstrate that the type of corruption can have different impacts on how activities that affect forests are monitored and regulations enforced.

As well as supporting the evidence above that corruption affects monitoring and enforcing, the results of my research also point to how patterns of monitoring and enforcement are important for understanding corruption systems. That is, the process of monitoring and enforcement is how and why many different components of the corruption system happen. This is tied to the issues of semblance of legality, mutual dependency and regulatory complexity described in the previous chapters. Firstly, government agents have an interest in monitoring and identifying illegal activities because it provides them with an opportunity to extract payments, which they can then distribute to their bosses to repay recruitment debts or to be considered for promotion. The threat of enforcing regulations and punishing any breaches is sometimes sufficient to extract payments from companies that are monitored. In cases where the regulations are poor or costly, enforcement instead becomes tied to a semblance of legality. That is, rather than actually enforce regulations, corrupt payments facilitate a semblance of legality. This semblance of legality can be very important for companies, and provide an important part of exchange for government agents. In order to get such payments, there must be something to offer, which in many cases is the opportunity to bypass complying with more costly regulations. The process of monitoring and enforcing therefore is also a critical part of the corruption process in that the process of monitoring and enforcing provides the opportunity to collect and pay bribes. Equally, my research supports the fact that corruption can impact upon monitoring and enforcing, and in turn this corruption often facilitates illegal activities.

There are some differences between the system described above for Indonesia and the practice in PNG. This is partly because the relationship of dependency between officials

and companies in PNG is based on the conflicts of interest brought on by the fact that officials in PNG live on-site at the companies that they monitor. In cases where the concession area is remote, officials depend on the company for accommodation, transportation and even meals. This leads to conflicts of interests for the officials in monitoring and reporting activities of the companies. Even though it is difficult to determine how much this conflicts of interest affects decisions about monitoring and enforcing regulations, there are nonetheless concerns that this conflicts of interest means that companies are allowed to operate illegally (CELCoR and ACF, 2006; ODI, 2007). Five reviews produced in collaboration between the government of PNG and the World Bank, documented multiple breaches, including failure to prepare areas for harvesting (such as clearing vines from trees before harvesting), logging plans not submitted, and a variety of other examples of non-compliance that had all been signed off by the officer in charge (Forest Trends, 2006a). However, what was more frequently noted by respondents, including government, industry and NGOs, was less about this dependency and more about other problems, such as negligence and lack of training.

This highlights the fact that whilst corruption can impact decisions about monitoring and enforcing, there are many other factors that also affect these decisions. Two broad explanations were identified in each country: the first, problematic regulations, the second a lack of capacity and negligence. Perceived problems with the regulations, specifically miss-match to local needs and ambiguity, was widely reported to impact on if and how regulations were monitored and enforced (Chapter 5). For example, in PNG regulations that restricted the amount of timber harvested in an area were perceived by some landowners to restrict their ability to benefit from the forests in their area. Government agents and company representatives acknowledged that they sometimes conducted/allowed illegal activities, because of pressure from the community. One government respondent, discussing his time monitoring and enforcing the logging code of conduct, described how, 'when you shut the companies [for illegally logging] you have your people, nationals coming up to us [saying] "you shut the company, we don't have any royalties or whatever to pay school fees"' (Meeting 15, 25 May 2011). This means that sometimes companies were allowed to continue operating illegally. In Indonesia,

ambiguous regulations were also seen to impact monitoring and enforcement. For example, conflicting rules over whether the required 20% smallholder oil palm plantations was within or in addition to concession areas (Chapter 3) meant that this regulation was rarely enforced. Beyond perceived problems with the regulations, the lack of enforcement of regulations was also seen as a consequence of the lack of capacity and skills and indeed the negligence of those tasked with monitoring, which has been reported in many studies around the world as being a barrier to effective monitoring (Goncalves et al., 2012; World Bank, 2006b). This shows that there are many factors that can affect if and how monitoring proceeds, with a variety of implications for the forests.

Impact on forests

Corruption in the process of monitoring and enforcing regulations has a variety of consequences for the amount of deforestation and forest degradation. The most obvious impact is that corruption can facilitate illegal activities and increase the amount of forestlands cleared or degraded. Indeed, much of the literature has focused on the contribution of illegal logging to deforestation and forest degradation (Palmer, 2001; Ravenel and Granoff, 2004; Robertson and van Schaik, 2001). There are also indirect impacts, where illegal activities degrade forest areas, which damages canopy cover leading to increased drying of forest areas, which in turn increases the susceptibility to fires. It is suspected that the prevalence of fires in protected areas in Indonesia during the 1997/1998 El Nino drought period may be due to the rate of unplanned degradation of these areas from illegal activity (Tacconi, 2003). The failure to enforce regulations has also affected the management of watercourses, particularly when river system buffer zones have been cleared or logged, which has been well-documented in PNG (Forest Revenue Review Team, 2002).

This is perhaps the most direct way in which corruption contributes to increased deforestation and forest degradation, but ultimately, the contribution of illegal logging or other illegal activities to deforestation and forest degradation depends on the exact laws that are not being monitored or enforced. Furthermore it is not often clear how much of the illegal activities in the forest sector may be due to corruption and how much the illegal

activities are a consequence of the variety of other problems, such as negligence or poor quality regulations. This shows that in practice, there can be complex links between corruption and a failure to monitor, with ambiguous implications for forests cover change.

Beyond issues of sustainability, there are also some complex links between a failure to monitor and enforce regulations and wider problems associated with environmental injustices. Corruption can contribute to injustices, as cases reported in this research and in the literature have shown. Specifically, organised illegal logging often fails to distribute benefits to communities and sustainability. However, it is important to acknowledge that, depending on the quality of the regulations, the principles of environmental justice can also be served by illegal activities. Much has been written about the fact that often communities engage in illegal activities because of the restrictive regulations. For example, government officials explained that they did not enforce regulations which required artisanal miners to get permission from the Ministry of Forestry, out of concern for the livelihoods of the community—as one government respondent explained, 'if we shut them down, how will they eat' (Meeting 42, 16 June 2011). In instances where regulations prohibit community activities or are prohibitively costly to comply with, illegal activities represent a more just outcome for communities (Colchester et al., 2006; Goncalves et al., 2012; Kaimowitz, 2003).

This means that whilst no doubt there are impacts from corruption and poor governance on the process of monitoring activities, and that this can contribute to deforestation and forest degradation, there are also more complex interactions between corruption and monitoring and enforcement, as specifications about monitoring and enforcing regulations are also key to understanding the system of corruption. These findings demonstrate that the overall impact on forests, including issues of sustainability and justice, is highly dependent on the content of the regulations. Illegal activities that go unpunished can contribute to injustice, but when the regulations are themselves unjust or ill suited to the local environment, the impact of corruption to bypass such enforcement can contribute to more just outcomes, or can have little impact on the forests. This relationship is particularly important for understanding efforts to improve governance and

reduce deforestation and forest degradation, which I return to in the next chapter of this thesis.

7.3.4 Benefit distribution

Corruption can also impact on the distribution of the benefits from activities that contribute to deforestation and forest degradation. Whilst decisions about how benefits are distributed are made after the activities in the forest have occurred, the decisions nonetheless can impact upon the long-term quality of forests and on the principles of environmental justice. This means that there is no direct contribution from corruption involved in the distribution of benefits from mining, for example, because it occurs after the forests have been cleared. But there can be indirect impacts on forests from this corruption. Understanding the impacts of corruption and poor governance in the distribution of benefits is therefore vital to assessing the contribution of corruption and poor governance to the wider problems associated with forest use.

The distribution of benefits is a key aspect to building legitimacy for different activities and, as described in Chapter 5, legitimacy is vital to the success of different activities. That is, activities that have legitimacy are better able to continue and expand. Projects that are unable to build sufficient legitimacy are less likely to happen, or will face other barriers during operation—such as the blockades by landowners described in Chapters 4 and 5. Although the careful distribution of benefits is a key component of building legitimacy, this does not mean that projects that build legitimacy are necessarily good projects. Corrupt payments and poor governance can work to build political support for poorer quality projects—projects that contribute to wider environmental or social problems. Indeed, as described in Chapter 3, the pattern of distribution of profits from logging operations to political leaders during Suharto's rule was seen as one of the main factors supporting the damaging timber industry (Dauvergne, 1994). Companies providing payments to politicians in PNG has also been described in PNG to be a key factor as to why there is ongoing political support for companies that have caused unnecessary environmental harm (Barnett, 1990a; Greenpeace, 2004; Laurance et al., 2011). This shows that in the short term, corruption and politically savvy distribution of profits can

lead to projects continuing to have support from key actors, despite wider environmental and social problems.

Corruption and abuse in the management and distribution of profits from logging (or other) activities can also have long-term consequences for both forest management and community development. In relation to forest management, corruption and poor governance of reforestation funds has been shown to be particularly relevant. Both countries have established reforestation funds, into which logging companies contribute a percentage of the value of timber harvested.[93] Corruption and mismanagement of these funds has been widely documented in both countries. In Indonesia, corruption, theft and general mismanagement of the reforestation fund (*dana reboisasi*) resulted in millions of dollars being used to provide (largely politically motivated) subsidies to inefficient and unprofitable industries, including the timber plantation and pulp and paper industries (Barr et al., 2010a). Since the fall of Suharto (1998), there have been reforms designed to improve the management of the reforestation fund, and a major barrier reported by many government officials was the fear that use of these funds would been seen as corrupt (Government representative. Meeting, 16 August 2011). In PNG also, there has been a documented history of abuse of funds designated for reforestation and of the distribution of royalties to landowners (Barnett, 1990a). In PNG, rather than being used to support unsustainable projects, the funds were often directly stolen, or there is little information kept about how much was collected or used. This is an ongoing concern, as one industry representative described—'they [the government] have no problem collecting the funds and spending them, it is the doing the work in the middle which is difficult' (Meeting 5, 12 May 2012). These examples demonstrate how context-specific the different types of corruption and abuse may be, and how this may impact on the distribution of benefits.

Fraud and other illegal activities have also impacted on the distribution of benefits designated for community development. This includes funds to contribute to local infrastructure projects and payments and royalties, which are meant to be paid directly to

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[93] In PNG the reforestation levy is K2/ m^3(Hunt, 2010). In Indonesia, the amount companies pay is dependent on species of timber and the area from which it is harvested (Barr et al., 2010b, p. 9).

communities or landowners. This is particularly evident in PNG, where according to the landownership regulations in PNG, all logging operations are required to pay a variety of fees and royalties to the resource owners.[94] Whilst calculating the exact amount of money that landowners receive in exchange for their resources is difficult, a review of the financial benefits of six logging operations estimated that the direct financial payments to landowners was between Kina 10 and 15 million per annum (Review Team, 2004, p. 66). There have been many documented cases where corrupt relationships have enabled companies to under-report their harvest and therefore under-pay royalties (Review Team, 2004) (Review Team, 2004). The corruption and embezzlement of timber royalties has been a well-documented problem in PNG. For example, a review sponsored, in part, by the World Bank reported that landowner company executives had illegally used the funds to support overseas travel on a 'marketing exercise'(Department of National Planning and Monitoring, 2004a) and to repay private debts of landowner company executives (such as travel and food expenses) to the logging companies (Review Team, 2004, p. 32).[95]

Impact on forests

The instance of corruption and poor governance in the distribution of benefits from resource use has several potential impacts on forests. Firstly, as I mentioned above, there can be long-term impacts on the amount of forest that is cleared or converted. Politically savvy distribution of logging profits during the Suharto era bought political support for logging operations that failed to comply with logging regulations, and contributed to excessive environmental harm (Dauvergne, 1994; Palmer, 2001; Poffenberger, 1997). Secondly, abuses of funds allocated to support reforestation or the rehabilitation of logged areas could also contribute to long-term environmental harm.

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[94] Mining and other development projects are required to pay royalties to landowners as well, but the regulations vary according to the type of resource. This means that, for mining particularly, the royalties to landowners are not as high because the resources themselves (anything under 6ft) are owned by the state (see Chapter 4 for more details).

[95] This was associated with landowner advance accounts where landowners—often LOC executives—borrowed money from logging companies for personal expenses. Logging companies charged high rates of interest and used the royalties as collateral.

The corruption and mismanagement of reforestation funds had two potential mechanisms to contribute to deforestation and forest degradation. Firstly, corrupt distributions resulted in funds being provided to activities which caused excessive deforestation, or that corruption and mismanagement meant that the funds were otherwise wasted and logged areas were not rehabilitated. In the case of the former, the reforestation fund in Indonesia was used to support the pulp and paper industry, leading to over-capacity of timber processing facilities. This over-capacity has continued to drive demand for timber from native forests, particularly in Sumatra (Barr, 2000). In Kalimantan, on the other hand, the corruption and mismanagement has led to the second situation—where the money is not spent to rehabilitate forestlands. As described above, the failure to use reforestation funds to effectively rehabilitate logged areas has contributed to the incentive to convert forestlands. In PNG also, there has been very little use of the reforestation fund to actually rehabilitate logged areas. Specifically, logging was calculated to have contributed to 886 659 ha of deforestation and 2 919 714 ha of forest degradation, of which only just over 20 000 ha was reportedly rehabilitated (Shearman et al., 2009 supplementary material S3).These figures have been criticised, however, for over-stating the amount of primary forest in PNG in 1970 and understating natural regeneration (Filer et al., 2009). The amount of deforestation caused by logging (and the failure to rehabilitate logged areas) may therefore be substantially less. However, this does demonstrate that despite large sums of money being collected in both countries, this has not contributed to reforestation in many areas. This failure to rehabilitate logged areas is, however, not all due to the impact of corruption and mismanagement of reforestation funds. For example, several NGOs and industry representatives in PNG described how landowners did not want their areas to be reforested, because they preferred to convert the forest area to alternative, more economical uses. Whilst corruption and mismanagement of the distribution of benefits and reforestation funds may contribute to more deforestation and forest degradation in the long-term, there are also many other factors that affect whether or not logged areas are rehabilitated.

Beyond contributing to the amount of deforestation and forest degradation, corruption in the distribution of benefits also contributes to the wider problems of distributive injustice

associated with deforestation and forest degradation. The pattern of timber royalties being captured and embezzled by so-called landowner representatives in PNG is a clear example of these injustices. Corruption and poor governance in the distribution of timber royalties removes the rights of the real landowners to benefit from the resources extracted in their area. This failure to benefit from resource extraction is also evident in the fact that conditions for many Papua New Guineans, in terms of health, education and infrastructure, conditions remain bad (United Nations Development Program, n.d.). This can also have secondary consequences for forest quality, as the lack of such economic development can contribute to ongoing demand for secondary commercial activities, such as agricultural expansion. Indeed, there have been many studies that point to poverty as an important driver of deforestation and forest degradation (Wollenberg et al., 2004; Wright et al., 2007), but the relationships between such secondary drivers would require more research to determine specific timelines.

There are therefore several potential indirect mechanisms by which corruption and poor governance can impact upon the distribution of benefits from activities that contribute to deforestation and forest degradation. This corruption can firstly lead to long-term environmental harm, due to lack of rehabilitation of logged areas, or contribute to the over-capacity of processing facilities, which has increased demand on native timber in the long-term. Secondly, corruption and poor governance can also contribute to wider problems of deforestation and forest degradation, such as the lack of true development for communities in forest areas. Combined with the stages above, the analysis shows that corruption and poor governance does not necessarily directly contribute to deforestation and forest degradation, but there are many mechanisms by which it does contribute to the wider problems.

7.4 Discussion

The analysis in the four stage above directs me to the research questions of the thesis, which are at the centre of this chapter: Does corruption and poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? And if yes, how? The previous section identified the many different ways that different types of

corruption can impact upon different stages of decision-making about land uses and forestry, monitoring logging activities, or distributing benefits from activities which impact on forest cover and function. However, it is also clear that there are many factors that mitigate this impact, and that negate the impact of corruption and poor governance. This section draws together the findings from the analysis above and the literature to identify key factors that may influence whether or not any particular act of corruption or poor governance does contribute to deforestation and forest degradation in these two countries.

Firstly, it is clear from the interview data and from the broader literature that under certain circumstances corruption and poor governance can contribute to deforestation and forest degradation. The literature described in the opening review of this chapter has shown that higher levels of corruption seem to be linked to higher amounts of deforestation and forest degradation (Barbier et al., 2005; Bulte et al., 2007). These studies have identified different factors, such as terms of trade, as being key to understanding when higher amounts of corruption will lead to higher rates of deforestation (Barbier et al., 2005). Understanding when is important, because even though there are, of course, examples where corruption and poor governance contribute to higher amounts of deforestation and forest degradation, the broader research also supports the argument that there are specific factors that affect the relationship between corruption and deforestation and forest degradation. Whilst this literature does support the main claim of this research, that the impacts of corruption are dependent on broader conditions, these studies have focused on cross-country trends and nationally aggregated corruption indices. The circumstances identified in my research however, are focused on specific acts of corrupt exchanges and whether or not these contribute to specific deforestation and forest degradation.

The factors that are most relevant from my research include the type of corruption, whether the outcome was legal and the match between the regulations and the specific environmental conditions in the area. Where corrupt payments were made to illegally convert protected areas to alternative uses, or where poor governance enabled companies to breach logging codes of conduct, corruption and poor governance may

contribute to deforestation and forest degradation. For example, the corruption that occurs in the process of licensing in PNG leads to the capture of decision-making by often self-appointed elites. Paid by developers, these self-appointed elites falsify claims about landowner support and get licenses covering areas that are not legally allowed. Any associated deforestation or forest degradation is at least in part a consequence of the corrupt payments. However, there are many instances where different types of corruption may lead to legal or other types of illegal activities with different consequences for the forests, and it is this variation that has been the focus of my analysis.

The variation means that the actual contribution of corruption and poor governance to the quantity of deforestation depends greatly on the legal framework for forestry issues as well as whether this framework accurately reflects the environment. That is, where corrupt payments are made to ensure preferential treatment, rather than to bypass regulations, arguably corruption does not contribute to deforestation and forest degradation. For example, if a forest area zoned to be converted to oil palm, corrupt payment that ensures one company gains access to the area over another company arguably does not contribute to deforestation, as the area is legally zoned for conversion. The payments determine who will the activity, not whether it will be done. The type of corruption in this case may be speed-money or for preferential treatment, as the exchange affects how quickly the activity is done or who does it, rather than affecting whether or not the activity happens. Corruption that illegally allows companies to get access to areas that are zoned as protection or production forests does not necessarily lead to more deforestation either, if the zoning is inappropriate (for example, area without forest is inappropriately zoned as forest estate). That is, where corrupt payments allow companies to bypass regulations that require release permits from the ministry when the area under question was cleared decades ago means that arguably the present-day corruption did not contribute to deforestation. These cases highlight that there are many factors that affect whether corruption does, in fact, contribute to higher amounts of deforestation and forest degradation.

The last example points to the need to also understand the historical context of forest conversion and corruption. That is, whilst the specific present-day act of corruption may

not contribute directly to deforestation, this is not the same as admitting that corruption and poor governance *per se* did not lead to that area being cleared. Both these countries have a history of corruption affecting forest management (Chapters 3 and 4). For example, during Suharto's rule in Indonesia, corruption and patronage in licensing contributed to more licenses being awarded than were sustainable. Kickbacks to politicians and the military also contributed to forest degradation because they enabled logging companies to bypass regulations such as those limiting residual damage. There were few (if any) efforts to reduce the environmental impact of logging activities. As all royalties were collected and managed by the central government, there were few development opportunities provided to local communities. The long-term effects of this is that many forest areas that were degraded during the Suharto era are now of little economic value, which increases the incentive to convert these forest areas to alternative uses. It is important, therefore, to distinguish between historical patterns of resource exploitation and specific acts of corruption in the present day. Also important is the counterfactual question of whether these areas would have retained forest cover if there had been no corruption. Such a question is impossible to answer, but these examples do highlight how complex the relationship between corruption, poor governance and forest use may be, and how important it is to understand the legal framework, the type of corruption and the condition of the forests in order to be able to determine if and when corruption may contribute to more deforestation and forest degradation.

Beyond understanding how corruption and poor governance impact on the absolute amount of deforestation and forest degradation, the analysis in this chapter also focused on the wider problems associated with forest management. Specifically, in the opening part I argued that it is not just the absolute amount of deforestation that has driven global concern over deforestation and forest degradation. The wider environmental impacts and injustices are relevant to assessing the impacts of corruption and poor governance.

One of the key criteria used in this analysis was drawn from the literature on environmental justice. Some studies have analysed the impact of corruption on principles of justice (Deflem, 1995; Smith, 2010; Warren, 2006). As already noted, the papers by Warren (2004, 2006) highlight the key impact that corruption can have on principles

associated with procedural justice. Warren argued that corruption in a democracy results in duplicitous exclusion, where those with a right to be engaged in decision-making are excluded and that this is duplicitous because it appears to be democracy. Other research has also highlighted how social norms of exclusion develop around corrupt networks (Robbins, 2000). Even though Robbins was not explicitly concerned with principles of environmental justice, his analysis nonetheless highlights how corrupt systems develop and points to clear implications for principles of procedural and distributive environmental justices.

The results from my research support these studies, demonstrating how corruption can negatively affect principles of procedural environmental justice. The system of campaign finance in Indonesia for example, resulted in elected officials being dependent on the favour of companies, rather than on the favour of citizens. In the case of PNG, the impact of corruption on procedural justice was also evident when so-called community representatives reportedly abused their positions to gain benefits from prospective developers. The result of this system was that landowner groups were often not consulted, or that the consultations became public relations exercises, rather than meaningful engagement. This highlights that even though the impact of corruption and poor governance on the amount of deforestation is ambiguous, there are nonetheless clear impacts on procedural environmental justice, which contributes to the wider problems associated with high rates of deforestation and forest degradation.

Corruption and poor governance was also shown to impact distributive environmental justice, however this impact was arguably not always negative. The failure to appropriately monitor and enforcing logging codes of practice, as documented in my research, could contribute to a greater environmental burden on communities in the area. This burden could come from factors such as river pollution, or flooding resulting from land clearing in watersheds. Corruption and poor governance also resulted in communities receiving fewer benefits from resource extraction, for example when landowner company executives in PNG embezzled timber royalties. And cases such as these have often been described in other reports about the PNG forestry industry (see Chapter 4). However, there were also some examples of situations where corruption did not negatively impact

upon the principles of justice. In cases where the legal framework provided little, or no, access to forest areas or royalties from resource extraction, corrupt and illegal activities allowed communities to bypass such barriers and still benefit from resources in their area.[96] The case of artisanal mining documented in my research is one case of this. The potentially positive impacts of corruption and illegal activities for community livelihoods has also been discussed in the literature, even if it has been less frequently mentioned than the negative impacts. The findings from this research therefore demonstrate that whilst the impact of corruption and poor governance on environmental justice in part is dependent on the content of the regulations, there can also be arguably positive impacts from corruption in cases where the regulations may be poor.

As well as the impacts on environmental justice, corruption and poor governance also had predominantly negative and often indirect impacts on the sustainability of resource management. Some of these impacts have been described in the literature, where, for example, Burgess and colleagues explained that during election periods, unplanned (illegal) logging increased(Burgess et al., 2012) . Corruption was also shown to result in inefficient land-use by agricultural production, as corrupt (and legitimate) lobbying saw increased subsidies for agriculture (Bulte et al., 2007). The findings from my research extend these arguments to detail specific mechanisms by which corruption and poor governance in Indonesia and PNG affect the planning and implementing of measures designed to promote sustainable forest management. One of the key examples of this was in relation to the process of land-use planning in Indonesia. Specifically, I described the indirect process by which corruption in the process of licensing created incentives for district governments to try to have more forestlands assigned to conversion. In these cases, the political economy of the governance process, including corruption, leads to greater concern for political needs in the land-use planning and less consideration of the sustainable management of the forests. This can lead to more area being allocated for

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[96] This argument in some ways reflects the economic issues described in the introduction to my thesis, where corruption was sometimes argued to have positive impacts of 'greasing the wheels' and thereby improving efficiency. This idea has been discredited. What I am arguing here is that, under certain circumstances, corruption can have positive impacts on justice, not efficiency.

development. It can also lead to greater priority for political and economic interests than environmental values, leading to areas such as watersheds or high-conservation areas being allocated to conversion. Indeed, studies have suggested that corruption restricts political interests to short-term concerns (for example see Ascher, 1999; Ross, 2001) findings which supports this argument in my research. Other examples from the monitoring and enforcing stage show that corruption and poor prioritisation enabled companies to bypass the regulations which were designed to limit environmental harm, such as logging codes of conduct. These examples demonstrate some of the mechanisms by which corruption and poor governance affect the sustainability of forest use, and contribute to wider problems of deforestation and forest degradation, such as biodiversity loss and watershed damage.

Different types of corruption and poor governance therefore have multifaceted impacts on the process of deforestation and forest degradation. That is, whilst the existing literature has highlighted several mechanisms by which corruption particularly may contribute to deforestation and forest degradation, there is a need to incorporate the question of when corruption does not contribute to deforestation and forest degradation. The analysis presented in this chapter further highlights the claim that even without specific acts of corruption, deforestation and forest degradation and illegal forest activities may continue. The analysis also shows that a wider set of criteria is needed to accurately assess the impacts of corruption and poor governance on forest areas. This argument provides a more nuanced idea for what the aim of improving governance and reducing corruption may be, because it is not just about the absolute area of forest lands that is cleared or protected, it is about the process and how well the various interests and values associated with forest resources are negotiated and traded.

7.5 Conclusion

This analysis shows that the contribution of corruption and poor governance to problems of deforestation and forest degradation is multifaceted. Corrupt payments can directly contribute to deforestation if, for example, corrupt payments are made to re-zone conservation area to development. However, few examples demonstrate a direct

relationship such as this, as there are also many legal and legitimate reasons to clear forest areas, or degrade forest ecosystems. This means that good governance can also lead to deforestation and forest degradation. Whilst the contribution of corruption and poor governance on the absolute amount of deforestation and forest degradation may be ambiguous, there are negative impacts on the sustainability of forest management and on principles of environmental justice from corruption and poor governance. Corrupt exchanges, and the systems that support them, result in actors being ignored, despite having a legitimate right to engage in decision-making; these exchanges and systems also enable companies to bypass regulations that, for example, restrict harvesting of protected species or aim to reduce the impact of logging. Corruption and poor governance therefore contribute to poorer outcomes from activities that lead to deforestation and forest degradation. Corruption and poor governance may also have little direct impact on forests if, for example, corrupt payments are made to speed up the licensing process for an otherwise legal license. The analysis presented in this chapter therefore demonstrates that the relationship between corruption, poor governance and deforestation and forest degradation can be complex, unclear and often indirect. These findings therefore have important implications for current efforts to improve forest governance and reduce deforestation and forest degradation, and it is these implications that will be described in more detail in the next chapter.

Chapter 8

Improving governance to reduce deforestation and forest degradation

8.1 Introduction

With ongoing reports that corruption and poor governance are causing deforestation and forest degradation in Indonesia and PNG, there has been rising effort to improve governance as a means to improve forest management (Brown et al., 2002; Gibson et al., 2000; Sikor and Stahl, 2011; World Bank, 2006b, 2009). Indeed, improving governance has not only been a key concept in the academic literature on deforestation and forest degradation (Batterbury and Fernando, 2006; McCarthy, 2002b; Palmer and Engel, 2007), but also in the broader policy-oriented literature (Contreras-Hermosilla, 2002; Daniel et al., 2007; World Bank, 2006b, 2009). The need to improve forest governance has become increasingly important with the prospects of billions of dollars of financing for efforts to reduce deforestation and forest degradation (REDD+) being directed towards countries with histories of widespread illegal forest activities, corruption and other features of poor governance (Global Witness, 2010; Kanowski et al., 2011; Luttrell et al., 2011; Williams et al., 2011). Whilst there are no doubt benefits to improving governance itself, it is clear from the previous chapters that the relationship between poor governance and deforestation is not necessarily clear. That is, even when efforts to improve governance (for example by reducing corruption) are successful, this does not necessarily translate to a reduction in the amount of deforestation and forest degradation. Having analysed the potential mechanisms by which corruption and poor governance does and does not contribute to deforestation, this chapter goes on to analyse the implications of the findings of the thesis for the current understanding and practice of improving forest governance in Indonesia and PNG.

This chapter begins with a background review of current literature on improving governance. Improving governance is a very complex and not necessarily well-defined

concept, and has been used to cover a variety of different activities (Kishor and Damania, 2007; World Bank, 2009). Whilst there are many factors associated with improving governance, the focus of this review is on three areas most relevant to the findings of this thesis: specifically, issues of law enforcement, accountability and participation, and finally anti-corruption. The main implications of the findings of this thesis for the topic of improving governance to reduce deforestation are then outlined, focusing again on the three areas of anti-corruption, law enforcement and rule of law, and accountability and participation. I analyse firstly how current efforts may actually succeed in improving governance and secondly how improving governance may reduce deforestation and forest degradation, and reduce the wider problems of deforestation and forest degradation described in the previous chapters.

8.2 The concepts and practice of improving forest governance

Improving governance has become a ubiquitous concept in much of the current discussion about forest management. Improving governance is aimed at achieving good governance, which is determined by qualities such as the presence of rule of law, control of corruption, regulatory quality, voice and accountability, political stability and freedom from violence (Kaufmann et al., 2012a; Kaufmann et al., 2012b). Indeed, the literature on improving the governance of forests also points to these qualities of good governance (for example Faguet, 2013; Richards et al., 2003; World Bank, 2006b, 2009). This section focuses on three of the key factors commonly discussed in the literature that are relevant to the findings of this thesis. Firstly, given that a theme of this research has been an explanation of aspects of legality and illegality, I focus on issues of law enforcement, rule of law and the problem of illegal logging. This includes consideration of regulatory quality. The second are of focus is participation and accountability. Finally, I consider the topic of anti-corruption in the forest sector.

Improving forest governance to address the problems of illegal activities in the forests has received considerable attention from academia, NGOs, national and subnational governments and other aid agencies (for example GTZ, 2009; ITTO, 2004; Tacconi, 2007c; Wells et al., 2007; World Bank, 2006a). The problems of illegal forest activities have been

well-documented and illegal logging specifically has been widely reported to contribute to deforestation and forest degradation (Burgess et al., 2012; Palmer, 2001). Therefore, improving governance by strengthening the rule of law and reducing illegal forest activities is vital to reducing deforestation and forest degradation (Contreras-Hermosilla, 2007; Global Witness, 2005; Hansen, 2011; Richards et al., 2003; Tacconi et al., 2003; World Bank, 2006b).

Efforts to strengthen the rule of law and improve forest governance are frequently categorised into prevention, detection, and suppression activities (Contreras-Hermosilla, 2002; FAO and ITTO, 2005). Prevention strategies have included programs such as those that promote legal certification and trade conditions (for example Indonesia's involvement in the EU Forest Law Enforcement, Governance and Trade (FLEGT) Goncalves et al., 2012; Luttrell et al., 2011), or programs that promote participatory practices for legal reforms (Del Gatto, 2003; FAO, 2004). Detection and suppression activities involve more traditional law enforcement operations and have also been widely promoted as a means to improve forest governance (Cerutti et al., 2013; Del Gatto, 2003; Global Witness, 2005; Hansen, 2011; Kaimowitz, 2003). Strategies to improve the detection of illegal activities have included periodic 'crack-downs' on illegal activities, or efforts to strengthen the monitoring of forest areas. For example, in response to widespread illegal logging in Indonesia, the President released Presidential Instruction (Inpres) No. 4/2006, which was accompanied by a national law enforcement program called the joint security sweeps (*Operasi Hutan Lestari* or OHL, sustainable forest operation) (Chapter 3). NGOs and other non-government organisations have also been involved in programs to improve the detection (EIA/Telapak, 2007, 2012; Greenpeace, 2004; Raitzer, 2010) and prosecution of those who commit forest crimes (for example, PNG's Centre for Environmental Law and Community Rights[97]). The idea is that these programs will help achieve the rule of law and thus improve forest governance.

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[97] The Centre for Environmental Law and Community Rights is a public advocacy group, who also raise funds and provide legal support for communities interested in pursuing legal cases, primarily against mining and logging operations.

Whilst efforts to strengthen law enforcement have been a dominant part of programs to improve forest governance, there have been mixed results in terms of reducing illegal forest activities and in terms of reducing deforestation and forest degradation. For example, increased monitoring and suppression in some areas has resulted in illegal activities moving to other locations (either within the same country or in other countries) where monitoring is less intense (Cerutti and Assembe, 2005).[98] Strengthening law enforcement has also sometimes focused only on lower-order crimes, such as those committed by less-powerful actors (such as chainsaw operators) in the forests themselves (for example, see the findings from ICW, 2009b), meaning that strengthening law enforcement fails to effectively deal with the broader drivers of illegal activities. Secondly, there has been research suggesting that efforts to strengthen law enforcement can lead to further injustices, as many livelihood activities of rural forest communities are not legally recognised (Downs, 2013; Kaimowitz, 2003).

There have been several studies seek to explain these, and other types of failures. These explanations include the lack of capacity of enforcement agencies, lack of political will, poor regulatory quality, market demand and norms of non-compliance (Goncalves et al., 2012; Jachmann, 2008; Kaimowitz, 2003; Smith et al., 2006; Tacconi, 2007c; World Bank, 2003, 2006b). Corruption is another key explanation for why efforts to strengthen law enforcement have often failed to achieve their goals. That is, high levels of corruption not only contribute to illegal activities but corruption can also create barriers to improving governance (Goncalves et al., 2012; Kaimowitz, 2003). For example, corrupt networks have been shown to provide protection for higher-level actors and reducing the desire of government officials to effectively tackle illegal forest activities (for example Poffenberger, 1997). This means that higher-order actors are not effectively punished for their engagement in illegal activities, a fact which has been reported from several countries (Cerutti and Tacconi, 2008; Cerutti et al., 2013; ICW, 2009b). There have been some efforts to address these failures, particularly efforts to support anti-corruption courts or

[98] In Cameroon, increased monitoring by international independent monitors reportedly led to an increase in illegal activities in the non-forest estate.

the use of money-laundering regulation to address the higher-order illegal forest activities (for example see GTZ, 2009). However, overall, the experience and research on efforts to strengthen law enforcement shows that efforts to improve governance in this way do not necessarily contribute to rule of law or improved forest management.

The second aspect of improving forest governance that is addressed here has to do with efforts to improve accountability and participation. Accountability in the literature on forest governance is typically associated with issues of transparency and corruption (Bardhan and Mookherjee, 2006; Kolstad and Søreide, 2009), and with the discussion about the merits and design of decentralisation reforms (Larson and Ribot, 2004; Xu and Ribot, 2004). This later perspective of accountability is closely tied to the notion of participation, in that the participation of communities and NGOs in decision-making is thought to contribute to increased accountability. Both accountability and participation have been widely cited as key for good forest governance (Brown et al., 2002; Kaufmann et al., 2012b), as the lack of accountability and participation have been considered to be a driver of deforestation and contribute to wider problems, specifically contributing to environmental injustices. Increasing accountability in the forests has typically focused on decentralising forest management, which increases the accountability of governments to local electorates (for example in Indonesia Palmer and Engel, 2007; and generally, see Tacconi, 2007a). On the other hand, programs to legally recognise the rights of communities or increase the participation of communities through community-based forest management projects are often promoted in order to increase participation (Agrawal et al., 2008; Agrawal and Gupta, 2005; Coleman and Fleischman, 2012; Palmer and Engel, 2007; Tacconi, 2007a). Improving forest governance in this way is widely thought to contribute to more sustainable outcomes in the forests, and contribute to improved livelihoods particularly for rural populations, because communities have better understanding of the local conditions, are likely to be more efficient and to operate sustainably due to the fact that they are more directly dependent on forest resources (Larson and Ribot, 2004; Ribot, 2002). These programs have been implemented in many different countries (Agrawal and Chhatre, 2006; Gray et al., 2001; Klooster, 1999; Ribot, 2002).

Whilst there have been some documented improvements to forest management from efforts to increase accountability and participation, research has challenged many of the assumptions that underpin the argument that increased accountability and participation will protect forest resources. Specifically, there has been little evidence to support the claims that decentralised forest management can occur in a democratic way, and thus improve downward accountability, and there is little reason to think that local institutions, that are accountable, would protect forests (Tacconi, 2007a). Both of these points have also been well described in the literature on community-based natural resource management, where a range of complex local institutional conditions are needed in order for such CBNRM systems to be sustainable (Agrawal and Chhatre, 2006; Agrawal and Gibson, 1999; Mascarenhas and Scarce, 2004), let alone contribute to more sustainable resource use (Agrawal, 2001; Larson and Ribot, 2004). This means efforts to improve governance do not necessarily translate into improved outcomes for forests.

The final element of improving governance that is relevant here has to do with control of corruption. There has been much written about the need to reduce corruption in order to improve governance (Kishor and Damania, 2007; Rose-Ackerman, 2004; World Bank, 2006a, 2007). However, more generally, there is less attention paid academically to the issue of anti-corruption (Larmour and Wolanin, 2001a). Controlling corruption is seen as important to not only reduce deforestation but to provide more sustainable and just management of forests (Contreras-Hermosilla, 1997; Robbins, 2000; Siebert and Elwert, 2004). The issue of corruption is also important as corruption can be a barrier to wider efforts to improve forest management—for example, there are several risks of corruption impacting the implementation of REDD+ (Tacconi et al., 2009).

Different approaches to addressing the problem of corruption are based on different conceptions of what corruption is, and what causes it. For example, one perspective on corruption, as described in Chapter 6, is that corruption is a consequence of individual rational calculations, and influenced by factors such as accountability, monopoly and discretion (Klitgaard, 1988; Rose-Ackerman, 1987). Such a conception of corruption suggests that efforts to reduce government discretion and monopoly powers would reduce corruption; a perspective that proscribes privatising government functions as an

important component of any anti-corruption program.[99] Other strategies to reduce the risk of corruption, such as that promoted by Transparency International (TI), involves building systems of accountability within the broader function of the government. TI's National Integrity System aims to build systems of monitoring and accountability between different arms of government (judicial, legislative and executive) as the way to reduce the opportunity for corruption (Pope, 2000). The aim of such programs is to increase the likelihood of detection of, and thereby reduce the opportunity for, corruption. And programs such as these have been instigated in many countries, including Indonesia and PNG.

As with the previous two strategies for improving governance, strengthening enforcement and improving accountability and participation, the outcomes of programs aimed at reducing corruption have been mixed. The difference between the anti-corruption programs and the programs described above of law enforcement is that the success of anti-corruption programs, in relation to the impact on forests, has not been well-studied or reported, particularly in the two study countries for my research. Examples from outside Indonesia and PNG have reported some success. In Cameroon, for example, Independent Monitors were reportedly able to reduce some corruption between government officials and commercial timber companies (Cerutti and Assembe, 2005), but these successes were confined and not necessarily sustainable; this was made evident by the fact that companies reported being asked for bribes whenever the independent monitors did not accompany the monitoring mission (Colchester et al., 2006), and there has been ongoing high levels of corruption in other aspects of the timber industry in Cameroon (Cerutti et al., 2013). There have also been cases where anti-corruption courts have successfully prosecuted corrupt cases involving Ministers and licenses (Rayda, January 28, 2009). Whether such activities have long-term success in reducing corruption, however, has not yet been proven. There have been even fewer claims about how this may reduce deforestation and forest degradation and improve forest management.

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[99] For example, the role of SGS in Papua New Guinea (Chapter 4).

The literature on improving these three aspects of governance has shown that improving forest governance can be complex and multifaceted, particularly as one element of governance may impact upon the success of efforts to reform another element of governance. For example, efforts to strengthen rule of law may be unsuccessful unless they are accompanied by successful efforts to control corruption. Indeed, the affect of interacting governance factors leads to one of the main criticisms of the 'good governance' agenda: that reforms to one governance factor are often insufficient. That is, in order to improve governance nothing short of whole-scale reform, targeting decision-making structures, administrative systems, human resources and institutions that 'set the rules of the game for economic and political interaction' will be sufficient (Grindle, 2007, p. 526).[100] The findings from my thesis also show that governance itself is a complex process and efforts to improve forest governance will not always contribute to a reduction in deforestation and forest degradation.

8.3 Policy implications

The key policy implications from this research are discussed below. They are grouped around the practice of improving governance itself, and secondly whether improved forest governance can contribute to improved outcomes in the forests.

8.3.1 Rule of law and law enforcement

Rule of law has been a key feature of the good governance agenda and has been the focus of many development programs, as described above. However, the findings from this thesis question whether the rule of law can be considered a feature of good governance. That is, the idea of what forest governance is, as it emerged from my research, involved a process of negotiation over if and how regulations would be enforced. And there were many factors that drove the need for this negotiation. In contrast, the principle of the rule of law, being full and consistent enforcement of the law, implies that the aim of improving governance is to ensure that such a negotiation does not take place. These findings

[100] A related criticism has to do with the whether reforms in any one sector can be introduced without addressing the broader governance in a country (Brown et al., 2002; World Bank, 2009).

therefore challenge the notion of rule of law as a key feature of good governance and suggest that the quality of governance process is about how the negotiation occurs, rather than whether any particular outcome is legal.

This is not to say that no laws should be enforced, as the findings from this research and the literature show that forest management could be improved with better enforcement of some laws. That is, forest governance could be improved if there were a greater priority placed on some of the interests protected in the laws. However, in keeping with some of the research above, the findings from my research challenge the common efforts to strengthen law enforcement as a means to improve forest governance. One of the key elements of the grounded theory of forest governance (Chapter 5) is that government officials play an important role in the negotiation over when and how laws are enforced. Efforts to strengthen the detection and suppression of illegal activities need to be considerate of why government officials choose to prioritise activities that are not legal, including corrupt interests, as well as the priorities associated with development imperatives and perceived problems with the regulations. The findings of this thesis (Chapters 5 and 6) also show how efforts to strengthen government agents' role in law enforcement without addressing these other priorities can lead to increased interest in a semblance of legality, and a rise in the number of fraudulent documents, without actually promoting rule of law or improving forest governance.

Whilst some of these challenges have been well-documented in the literature, what is important here is that even when efforts to strengthen law enforcement are successful, this does not necessarily translate into reduced deforestation and forest degradation, meaning that improving governance in this way will not necessarily contribute to reduced deforestation and forest degradation. This is because, as noted in Chapter 7, there are many different illegal activities that arguably do not lead to deforestation and forest degradation. For example, illegally awarding plantation licenses within the forest estate in Indonesia may not contribute to deforestation if the area under the license did not have any forest cover. Other illegal activities were only indirectly tied to increases in deforestation: for example, the long-term effects of corruption and fraud in the distribution of benefits from logging operations. Efforts to improve governance by

strengthening the rule of law may not contribute at all to a reduction in deforestation and forest degradation, or may have only indirect benefits to forests. Secondly, it is important to note that even if there was no illegal activity, this does not necessarily mean that there would be an overall reduction in deforestation and forest degradation. Many of the respondents from this research described the demand for infrastructure and the other economic benefits that were associated with activities such as mining, logging and the development of commercial agriculture (Chapter 5). In order to improve forest management, efforts to improve governance by strengthening law enforcement must therefore seek to target illegal activities that have the greatest contribution to deforestation and forest degradation.

Targeting law enforcement to illegal activities that have the greatest impact on the forests could also help improve the sustainability of forest management. As I described in the previous chapter, unsustainable forest management has contributed to wider problems associated with deforestation, such as the loss of biodiversity and damage to watersheds. Respondents in this research, and the literature from both countries, have identified the illegal activities that have contributed to these wider environmental problems. These illegal activities include the failure to comply with requirements to rehabilitate logged areas in Indonesia and the failure to comply with the logging code of conduct in PNG. However, as described above, often efforts to address these types of illegal activities focus on the lower-order actors, rather than those driving this behaviour. This presents a key challenge to improving governance in a way that best contributes to improved forest management, in that there is a need to reduce illegal activities that have a direct impact on forests. But in order to address those illegal activities, broader reforms, including reforms to market dynamics, are needed. Balancing direct interventions and indirect reforms is important to ensure short-term improvements and long-term changes.

As well as improving the management of forests themselves, efforts to strengthen law enforcement can also have impacts, both positive and negative, on environmental justice. Environmental injustices are commonly associated with activities that lead to

deforestation and forest degradation. Improving forest governance, by reducing illegal activities, can improve procedural justice.[101] This is particularly the case in PNG, where landowners must be consulted and their approval gained before any activity can proceed. In such cases, efforts to strengthen compliance with the laws could improve procedural justice. However, as identified in Chapters 4 and 7, there are many reasons, such as the remoteness of many landowner groups and limited education of landowners, which affect the process of engaging with landowners. Traditional efforts to strengthen law enforcement will not address these other barriers to effective procedural justice and rule of law. Imposing rule of law may also improve distributive justice, particularly in relation to the reduction in damage to forests and better distribution of the benefits. However, as described above, efforts to strengthen the detection and prosecution of illegal activities have in the past unjustly targeted the illegal activities conducted by lower-powered actors (Downs, 2013; Kaimowitz, 2003). This means that efforts to strengthen law enforcement can, under some circumstances, reduce the wider problems associated with deforestation and forest degradation, but in corrupt conditions, efforts to strengthen law enforcement can also lead to increased injustices, particularly for communities in forest areas.

My research supports, therefore, efforts to reduce illegal activities as a means to improve forest management and reduce deforestation and forest degradation. However, there are several qualifications to this support. Firstly, this research challenges the idea of the rule of law *per se* as a goal of good governance. Secondly, it is important to acknowledge that the current practices of strengthening law enforcement may not lead to increased rule of law, particularly where government agents have competing priorities. Furthermore, even efforts to improve rule of law may not contribute to reduce deforestation and forest degradation or help to mitigate the wider problems associated with deforestation and forest degradation.

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[101] Where justice is served by the participation of those with the right to participate.

8.3.2 Participation, accountability and legitimacy

Increasing participation and improving accountability have also been a focus of efforts to improve forest governance in Indonesia and PNG. There are two particular findings from my research that have implications for understanding issues of improving governance by addressing issues of accountability and participation. Firstly, as described in Chapter 5, one particular mechanism of accountability that emerged from this research had to do with the expectations of different actors. For example, companies were often held to account for whether their activities met the expectations of other actors. These expectations are developed through the process of negotiation in socialisation, and in PNG, through the process of licensing. These informal accountability systems were rarely addressed in efforts to improve forest governance as most of the accountability effort has focused on activities within the government. Secondly, and relatedly, the relationships in the system of mutual dependency, described in Chapter 6, also work as an informal accountability mechanism. That is, government officials and elected representatives are dependent on the support of companies to maintain their positions, and thus are accountable to those companies for their actions. Equally, companies hold government agents to account for their ability to support the company. These more informal accountability relationships are related to formal accountability, but are rarely addressed by efforts to promote accountability and participation. This suggests that efforts to increase accountability need to pay great attention to these informal structures to effectively improve governance. Current efforts to improve formal accountability, such as through decentralisation reforms, will not necessarily address the informal accountability, which, as described above, can be resistant to such reforms.

Again, this is not to say that there have been no improvements in accountability and participation and that this cannot improve forest governance. However, the findings from my thesis also point to the complex relationships between increased participation and accountability and outcomes in forests. That is, improving accountability and participation does not necessarily lead to reduced deforestation and forest degradation. This is evident in the fact that respondents from all of the groups identified the relief of poverty and

economic development—often tied to the activities of logging, mining and agricultural companies—as key priorities in the process of negotiation. This means, similarly to other authors (Tacconi, 2007a), that there is little evidence from my research to suggest that greater participation of communities would necessarily lead to less deforestation and forest degradation. There are, of course, instances where increased accountability and participation may lead to decreased deforestation and forest degradation: for example, where community groups do not wish to have such activities go ahead, or if officials are held to account according to land-use plans. However, there is little evidence from this research to support the claim that increased accountability in general would lead to a reduction in the extent of deforestation and forest degradation.

The impacts of increased accountability and participation also go beyond just the amount of deforestation and forest degradation, as improving accountability and participation can also contribute to addressing the wider problems of forest management, particularly to do with environmental injustice. There are several mechanisms by which efforts to improve governance may lead to improved environmental justice. For example, there is a direct relationship between improved participation and procedural justice. In practice, however, as the experience of PNG shows, efforts to improve participation may not always empower the true landowners (Chapters 4 and 7). That is, whether efforts to improve governance by improving participation do in fact contribute to improved justice depends on the broader conditions in a country. That is, factors such as the level of education and access to education may be important determinants of whether improving governance will actually promote procedural justice.

The findings from my research therefore highlight the complexity involved in efforts to improve forest governance by improving accountability and participation. Firstly, the findings show that informal accountability systems will need to be targeted in order to effectively improve accountability and participation. Secondly, such improvements do not necessarily contribute to a reduction in the amount of deforestation and forest degradation; however, such improvements can contribute to a reduction in the wider problems associated with deforestation and forest degradation. That is, some efforts to improve accountability and participation may reduce the wider negative impacts of

deforestation and forest degradation, but they may not necessarily lead to an overall reduction in the amount of deforestation and forest degradation.

8.3.3 Anti-corruption

Let us now turn to the efforts to reduce corruption in order to address deforestation and forest degradation. Earlier, I described the common approaches to anti-corruption: for example, through efforts to promote privatisation and increased transparency, which are based on the economic rationalist perspectives of corruption. And there are aspects of this approach that reflect the concepts of corruption from the grounded theory. That is, efforts to decrease the role of government, for example in monitoring activities, can reduce the opportunities for corruption, as the threat of enforcement is a main bargaining tool for corrupt payments. However, it is clear from this thesis that there are many different causes of corruption, which means that promoting transparency may only be successful against some types of corrupt exchanges. Furthermore, the system of mutual dependency described highlights how entrenched corruption can be, and how difficult it is to change, when both parties benefit. This has implications for both how anti-corruption programs may affect the corrupt exchanges and secondly, what this means for the forests of Indonesia and PNG.

Firstly, many different factors identified in this research potentially drive corrupt exchanges, which may not be addressed by typical anti-corruption approaches. Typically anti-corruption approaches focus on similar strategies to general law enforcement: prevention, detection and suppression of the specific illegal activities. But such approaches may fail to address the broader factors, such as those identified here, which also affect and drive corruption. These factors include problems with the regulations,[102] power struggles resulting from historical abuses, the need for a semblance of legality, relationships of mutual dependency and norms of non-compliance. Efforts to better

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[102] Whilst clarity of regulations is often cited as important for anti-corruption, there are a variety of problems with regulations that were identified in this research that go beyond clarity. That is, the problems associated with a mis-match between the content of regulations and the local conditions is also an important driver of corrupt exchanges.

detect and punish corrupt exchanges will not necessarily improve forest governance unless there are corresponding efforts to address some of these broader factors. However, the question then becomes whether effectively improving governance would require addressing all of the above drivers of corruption, or how to identify the most important in different contexts. Research is needed into the factors that create demand and support for corrupt exchanges, and how these factors may interact, in order to more effectively address the different drivers of deforestation and forest degradation.

The second and related implication of this research again points to the question of whether anti-corruption efforts in the forest alone can be successful, given the broader drivers of corrupt exchanges. This idea reflects part of the debate mentioned above about whether improving governance can be achieved at a sectoral level, or if nothing short of full reform is necessary. The findings of this research point to both aspects of this debate. In Indonesia, for example, I find that the issues of public sector recruitment and political campaign financing are key factors driving some corrupt exchanges. Efforts to address those exchanges in the forest sector alone are unlikely to be able to effectively reduce corruption and improve forest governance. However, reforms do have to start somewhere. Efforts to target and reduce corrupt payments associated with licensing could contribute to broader anti-corruption efforts by reducing the incentives (for companies) to contribute to campaign funds. However, this relationship is indirect and may not effectively improve forest management.

Successful efforts to reduce corruption can, under some circumstances contribute to a reduction in deforestation and forest degradation. However, there are several factors that will affect whether successful anti-corruption efforts to, in fact, reduce deforestation and forest degradation. Chapter 6 demonstrated the complexity of the relationship between corruption and deforestation and forest degradation. There were clear examples where particular instances of corrupt exchanges could increase the amount of deforestation and forest degradation; efforts to reduce that corruption could therefore reduce the resultant deforestation and forest degradation. For example, the successful reduction of corruption involved in land-use planning could prevent forested areas from being re-zoned to conversion. Addressing the conflicts of interest of field officers in PNG could enable them

to better monitor and report breaches by logging companies, thereby reducing the amount of forest that is degraded by poor logging practices.

However, in many cases, the impacts are more indirect, and the relationship between reducing corruption and reducing deforestation is not clear. For example, the previous chapter described the potentially complex interactions between land-use planning, concession license allocation, and corruption. Specifically, there has been well-documented corruption in the process of allocating licenses, but the link from this corruption to deforestation and forest degradation is largely dependent on land-use planning. This means that efforts to reduce the corruption involved in allocating licenses may not contribute to a reduction in deforestation and forest degradation. The effect of reducing corruption is dependent on the type of corruption involved, be it speed money, preferential treatment, or payments to get illegal access to areas. Successful reduction in the latter type of corruption could contribute directly to reduced deforestation and forest degradation. Reducing the first two types of corruption would not necessarily lead to reduced deforestation and forest degradation. This shows that the successful reduction in corruption may not necessarily contribute to a reduction in the extent of deforestation and forest degradation.

Whilst the above examples show that a reduction in some types of corruption may not lead to a reduction in deforestation and forest degradation, this does not mean that there are no other potential benefits from a reduction in corruption. That is, there are several mechanisms by which anti-corruption programs may reduce the wider negative impacts of deforestation and forest degradation. Firstly, the successful reduction in some types of corruption can lead to improvements in the sustainability of forest management. For example, efforts to eradicate the corruption involved in land-use planning in Indonesia may have positive impacts on the sustainability of forest management, as areas that should be protected are not re-zoned because of corrupt interests. A reduction in some types of corruption associated with licensing may also contribute, indirectly, to more sustainable forest management due to the potential indirect impact on the process of land-use planning. That is, improving governance by reducing some types of corruption could improve the process of land-use planning and lead to more sustainable forest

management. However, the impacts for forest management are tentative as economic interests may continue to dominate decision-making. Even under conditions of good governance, there are obviously still strong interests to continue opening areas to logging, mining and agricultural development.

As well as environmental benefits, there are also potential improvements to environmental justice from successful anti-corruption programs. Generally, as noted in Chapter 6, corruption is thought to reduce participation and affect the representativeness of elected officials (Warren, 2006). The findings of my research also show that some types of corruption do contribute to environmental injustices. This is particularly the case with the system of mutual dependency described in Chapter 6, where the power of elected officials is dependent on their relationships with the companies who support their campaigns. Successful reduction in corruption associated with this mutual dependency could improve procedural justice. However, there are also types of corruption that arguably facilitate distributive justice when, for example, corrupt exchanges allow unjust laws, such as those that restrict access of communities to traditional livelihoods, to be bypassed. In such cases, reduction in this type of corruption could have negative impacts on communities (for example Kaimowitz, 2003).

8.5 Conclusion

This chapter has discussed some of the implications of the findings of my research for efforts to improve forest governance in Indonesia and PNG. Focusing on the rule of law, accountability and anti-corruption, I discussed how current efforts to improve governance actually function in the forests. Specifically, I suggest that current practices to strengthen law enforcement, promote participation, and reduce corruption can miss key aspects of the governance process that actually take place in the forests. Therefore, those programs may fail to actually improve governance. Secondly, I argued that it is very difficult to understand if improvements in governance do lead to a reduction in deforestation and forest degradation. This is because corruption and poor governance do not always lead to more deforestation and forest degradation. In order to improve governance in a way that reduces deforestation and forest degradation in Indonesia and PNG, more research is

needed on how efforts to improve governance actually function. The next chapter highlights other potential areas of future research and concludes the thesis.

Chapter 9

Conclusion

9.1 Research aim and approach

High rates of deforestation and forest degradation remain a key global concern, and a significant environmental and developmental challenge in Indonesia and Papua New Guinea (PNG). As forests are cut down and converted there are many wider problems, such as biodiversity loss and greenhouse gas emissions (Gibbs et al., 2007; Turner, 1996). As efforts to reduce this high rate of deforestation and forest degradation and to improve forest management continue, there has been an increasing focus on the governance of forest resources. Specifically, there is considerable concern that corruption and poor governance are contributing to deforestation and forest degradation (Saunders and Nussbaum, 2008; Smith et al., 2003b; World Bank, 2006a, b). Whilst there have been studies that have provided some support for this claim (Barbier et al., 2005; Bulte et al., 2007; Smith et al., 2003b), there are nonetheless several gaps in this literature. These gaps include a lack of consideration of the local variations in the type and impact of corruption and poor governance (Bulte et al., 2007). Where studies have analysed the complex localised patterns of corruption, they have rarely analysed the impact on the forests (Gupta, 1995; Wollenberg et al., 2006). This thesis contributes to the literature by developing two grounded theories, of forest governance and of corruption. The findings of these grounded theories were used to analyse the mechanisms by which corruption and poor governance may contribute to deforestation and forest degradation in the two case study countries.

In order to build an understanding of local processes of governance and corruption, I adopted the methodology of grounded theory, developed by Glaser and Strauss (1967). Rather than the logico-deductive approach to theory identification and testing, the grounded theory approach involves generating theory from the data as it is collected. A key feature of this approach is the integration of traditionally separate stages of research, meaning the processes of data collection, analysis, theoretical sampling and writing are

integrated. For this thesis, the main process of data collection involved semi-structured interviews conducted with various representatives of government, civil society and industry. The interview data was analysed using the constant comparison method, which guided future sampling on theoretical grounds (Chapter 2). The two grounded theories of forest governance and forest corruption were presented in Chapters 5 and 6 respectively. The findings of those theories were then used to analyse the ways in which poor governance and corruption could affect forest management and contribute to deforestation and forest degradation in Indonesia and PNG.

9.2 Key findings and implications for theory and practice

Ongoing and widespread concern about the high rate of deforestation and forest degradation, and their wider impacts, make the focus of this thesis significant for understanding the drivers of deforestation in Indonesia and PNG. Whilst a considerable amount of research has already been conducted into different drivers of deforestation, the growing trend to focus on governance and corruption makes this thesis timely, particularly for current efforts to improve governance to reduce emissions from deforestation and forest degradation (REDD+). As well as contributing to an important policy debate, the findings of this study contribute to current academic literature on topics including research methodology for sensitive topics, and theories of forest governance and theories of corruption.

Firstly, although there has been a great deal of discussion about corruption in the forests, there has been considerably less qualitative research to understand if and how corruption may impact forests. One reason for this lack is the methodological and practical challenges of conducting politically sensitive research. In Chapter 2, I detailed the challenges of this kind of sensitive research, such as how to get people to talk about corruption, how to analyse the small amount of sometimes conflicting information about corruption, and how to present findings from sensitive research. Whilst many of the interviewing strategies adopted in my research are common techniques from other areas, particularly journalism, they have not yet been well discussed in an academic research context. Detailing the data collection process for sensitive research, and reflecting on the impact

on the results of this research, contributes therefore to the growing body of methodological literature for conducting academic research on politically sensitive topics.

One of the main methodological and ethical challenges faced in conducting my research was the challenge of gaining access to participants. This is because, in order to gain access to them, I had to identify words that could frighten away potential participants, and I had to *rephrase* proposals and descriptions of research topics in order to avoid those sensitive words. For example, it became clear that the word *deforestation* could be too sensitive for some potential participants and had to be rephrased to *forest management* as a means to gain access to specific participants. Learning how and when to rephrase sensitive words was a time-consuming process, and created a challenge because of the loss of potential participants. Rephrasing proposals also presents potential ethical and legal risks to researchers under certain conditions, which I discuss in more detail shortly. Whilst these challenges are unlikely to be unique to my research, there has not been much detailed description or analysis of such challenges, or the implications for research findings, in the literature.

Secondly, and related to the challenges described above, is the fact that it is difficult to plan in advance the types of information that may be available when conducting research on sensitive topics like corruption. The information collected is often from a very small number of participants, and it is often conflicting and potentially biased. These challenges have important implications for any type of methodology, and yet have not been well defined in the literature. In this thesis, I have therefore paid particular attention to drawing out the implications of this sensitive topic on the methodology of grounded theory. For example, I found that a key challenge to developing a grounded theory was in trying to reach what is defined in the literature as *theoretical saturation*. Describing these problems, and how I sought to overcome them, for example describing the criteria I used to determine theoretical saturation, is potentially important to further developing the literature on grounded theory methodology, and is vital to evaluating grounded theories on this type of sensitive topic.

The findings of the grounded theories (Chapter 5 and 6) contribute to current research on corruption and poor governance in the forest sectors of the two countries. Firstly, by generating a theory, this research builds on existing governance literature by showing how governance factors operate in practice, and by identifying concepts of forest governance that were different to those traditionally presented in the governance literature. Specifically, a key finding of my grounded theory of forest governance was that the process of governance is a negotiation over if and how regulations are implemented. This process of negotiation includes balancing priorities, building legitimacy and strategies to control the negotiation, which all ultimately impact on if and how regulations are implemented. This finding particularly challenges a current focus on the rule of law as a dominant characteristic of good governance. I also argue that such findings suggest a need to better incorporate compliance theory into the broader governance literature in order to better understand the motivations around this negotiation. These findings also point to how the interests of government agents are important for understanding when, and if, they enforce compliance, a feature of compliance literature that has been under-researched.

The findings from the grounded theory of corruption in the forest sector (Chapter 6) makes useful contributions to the literature on corruption and forest governance. A main finding from this thesis is the importance of understanding the systems that emerge to support corrupt exchanges, rather than just focusing on the corruption exchange itself. Several systems were identified, including that of mutual dependency, in which corrupt actors became dependent on others being corrupt in order to achieve different goals. Importantly, the system of mutual dependency incorporates factors outside the forests themselves, such as campaign financing. The system of mutual dependency was also linked to a system of positioning in anticipation of future corrupt exchanges. Several of these issues, such as how campaign financing can be a driver of corrupt exchanges, have already been discussed in the literature. However, the details of how these systems work in practice to support and demand corrupt exchanges highlights the interactivity between different governance conditions. Specifically, the findings of this thesis show how individual corrupt exchanges are embedded within broader governance systems, which in

turn alter the nature of the corrupt exchange. These findings provide potential insights into the drivers of different types of corruption, thereby contributing to the current literature on corruption in the forests.

The findings from this thesis are also relevant to the current policy debate over how to improve forest governance and reduce deforestation and forest degradation. The analysis presented in Chapter 7, does, to a certain extent, support the claims that corruption and poor governance can contribute to deforestation and forest degradation. However, overall, I found that the relationship between corruption and deforestation and forest degradation can be far more complex, and that not all efforts to reduce corruption will help to reduce deforestation and forest degradation. That is, efforts to reduce corrupt exchanges in licensing may have little benefit for forests, if that corruption was for the preferential treatment of one company over another company. In other cases, the relationship is largely indirect, where the expectation of corrupt exchanges encourages planners to allocate more land to conversion, or leads to competing authorities for land allocation. These findings are significant because not only do they provide a nuanced description of the complex impacts of different types of corruption on forest management in the two countries considered here, they also contribute to an important policy debate arguing that reducing many types of corruption is unlikely to have any direct impact on reducing deforestation and forest degradation.

Finally, in the analysis of the impacts of corruption and poor governance on forests, I focus on the contribution not only to actual deforestation, but also to the wider problems associated with activities that lead to deforestation and forest degradation. These problems include, for example, biodiversity loss, damage to river systems from a failure to protect water catchments, and the failure of many deforesting activities to contribute to meaningful development for communities. I argue that whilst corruption and poor governance do not always result in higher amounts of deforestation, corruption and poor governance could exacerbate the wider problems associated with deforestation and forest degradation. By specifically analysing these wider problems, the findings of this research help to extend existing research by showing that the impacts of corruption and poor governance are not solely about the amount of deforestation and forest degradation, but

also the wider and associated social and environmental problems. This is important because many efforts to improve forest management have done so with the intention of reducing these wider problems.[103] Research such as this thesis is therefore needed to better understand the contribution of poor governance to the wider social and environmental problems of failed forest management.

9.3 Reflection on the limitations of this research

Like all research, there were limitations to conducting this study that have implications for how the research proceeded, how the ultimate findings can be interpreted, and for whether this research was conducted ethically. These limitations were caused by a variety of factors, primarily associated with the sensitivity of the research topic.

The first possible limitation of this study has to do with getting access to participants, and getting them to talk about the sensitive topic addressed here. As noted in Chapter 2, there were many challenges to gaining access to participants, and there were some groups to which I was ultimately unable to access, specifically the police. The implication is that there were some key actors who were largely left out of the analysis. In order to gain access to some other participants, I also had to rephrase the focus of my topic, which has ethical implications for the research. This 'rephrasing' my research topic could be seen by some to breach the considerations of informed consent, which is a key principle of ethical research. However, the principles of ethical research highlight that under certain circumstances, such as when the value of the research is high and risks to participants are low, the principle of informed consent can be waived (Australian Government, 2013). Whilst the University Human Ethics committee approved my research approach, there were nonetheless implications for how I conducted the study, and particularly how I presented the findings: I excluded information that could identify individual participants.

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[103] For example, the European Union (EU) efforts to reduce illegal forest activities as part of the Forest Law Enforcement and Governance and Trade (FLEGT) program argue that promoting a legal and sustainable forest sector is important to provide a wide range of benefits, 'such as rural livelihoods, environmental services, and sustainable resources on which to build long-term economic development'.

A second potential limitation is more practical and caused by the difficulties in getting people to talk about sensitive topics like corruption, deforestation and forest degradation. The findings and analysis of this research were possibly limited by the fact that the ultimate results are based on a small number of participants, and possibly skewed responses, due to the fact that some types of corruption were less sensitive than others. That is, participants who did speak about corruption were possibly able to discuss some types of corruption, and not others, which could bias the findings. Drawing on a wider range of sources and accepting vague descriptions could help to mitigate such a limitation, but whether it could be more successful than the approach adopted here is unclear, as some types of corruption may have still remained hidden.

Accepting vague descriptions (where respondents alluded to aspects of a corrupt exchange but were unwilling or unable to provide details of those exchanges) was important and points to the potential limitation of corruption research more generally. That is, what evidence is sufficient to know that corruption is occurring? This is because much of the research on corruption, including the present study, relies on perceptions of corruption, or descriptions and stories of corrupt exchanges, and little is based on data from direct observations of corrupt exchanges. This has implications for the findings of any study on corruption, because as seen from other research, narratives of corruption can perform a social function, and may be distinct from actual corrupt exchanges (for example see Gupta, 2005). This means that respondents in my research also provided descriptions of corruption that possibly reflect the qualities of the social narrative, rather than descriptions of experienced corrupt exchanges. This is perhaps why there is an under-representation of NGOs in the quotes used in this thesis, as many representatives of NGOs were not usually engaged in activities that required much corruption, therefore their responses tended to appear to be a narrative of corruption. This idea, of researchers interpreting respondents' information in this way, is seen by some as a major limitation of the qualitative inductive approach to research (Denzin and Lincoln, 2011; Kelle, 2005; Silverman, 2004).

The challenge of *what counts as evidence* in academic research also extends to the question of evidence about the impacts of corruption. As stated in the introduction to this

thesis, one of the main aims of this research is to analyse the processes of governance and corruption in the two case study countries, and to identify mechanisms by which this contributes to deforestation and forest degradation. However, there was limited availability of information about deforestation and forest degradation, which affected the identification of the mechanisms by which corruption may impact forest cover. The lack of available data about the process of deforestation in different areas posed a potentially significant limitation to this study, in that it was impossible to link any specific acts of corruption with specific changes in land-use. The consequence of this is that the analysis became more general, as I sought to identify potential mechanisms by which corruption may impact forest cover. Further analysis would be needed in specific areas to assess whether such processes were, in fact, occurring.

A key definition of sensitive research is that the sensitivity of the topic affects the writing and publication of material and findings (Leitão, 2010). This presents limitations to how the results of sensitive research can be presented, specifically that participants in this research could not be identified. This posed specific challenges related to the balance between the need for descriptive detail to verify the information, and the need to limit such details. That is, detailed description is vital to grounded theory methodology as a means to build the depth and validity of the findings, but presenting such details raises the potential risk of exposing respondents. This has a variety of implications for how the findings are presented, and how the results of the grounded theory can be evaluated.

Finally, there are possible limitations to applying the findings of this research to policy development. This is a widely debated criticism of the inductive research approach: that the findings are not transferable to other situations (Stake, 1995; Yin, 2009). Relatedly, as described in Chapter 2, one of the key criteria for evaluating grounded theories is that they fit with the empirical situation from which they emerge and work, in that the theories 'provide us with relevant predictions, explanations, interpretations and applications' (Primmer, 2011, p. 61). And whilst the application of the grounded theory approach should achieve theories that fit and work, translating that to practical policy advice is difficult. Indeed, the results of this thesis, and the policy implications described in the previous chapter, highlight how context-specific governance factors may be, and the

many different ways in which different aspects of governance may interact. This approach was therefore arguably limited in the ability to inform policy in other countries and instead can be used to guide further research on policy-specific factors.

9.4 Future research

Given the importance of efforts to reduce deforestation and forest degradation, globally and in Indonesia and PNG particularly, there are several findings of this thesis that point to existing gaps in our understanding about the impacts of corruption and poor governance on forests. Firstly, as I described throughout this thesis, the focus of this research was on the implementation of regulations. More research into the process of governance involved in forming regulations could contribute to greater understanding of the whole governance process, particularly given the importance of the perceived quality of regulations to the process of negotiation discussed in this study. This thesis' findings could also be extended to look at the process of land-use planning, and how governance and the broader political economy affect the process of land-use planning in both countries.

A second direction for future research would be towards understanding the actual practices of improving governance and how these impact upon forest resources. Many studies have sought to identify how programs aimed at improving governance actually operate, identifying constraints and successes for such programs (for example with decentralisation Barr et al., 2006; Larson, 2004). However, the results from this thesis suggest that there can still be a disconnect between current practices to improve governance and the potential positive outcomes for forests—specifically that efforts to improve governance do not necessarily focus on the aspects of governance that are most detrimental to forest management. More research to analyse the actual practices associated with improving governance would help to fill this gap in knowledge, and develop further understanding of the nature of good forest governance.

This research could also be extended to look at the practices associated with anti-corruption. As I stated in previous chapters, there has been far less research into anti-corruption, what it is and how it has been implemented (Larmour and Wolanin, 2001a). This is not to say that there has been no research into anti-corruption, rather that

corruption research has focused on analysing specific aspects of corruption, which then implies certain anti-corruption solutions (for example Klitgaard, 1988). Previous research has typically focused on the political dimension, concerned with political will and perceptions of corruption (Bracking, 2007; Harrison, 2006). More research focused on the types of corruption that are addressed by different anti-corruption programs could provide new insights into how efforts to reduce corruption may impact upon forest management.

9.5 Conclusion

Deforestation and forest degradation is one of the most significant processes of global environmental change and has attracted concern for many decades. Importantly, the concern is not just about deforestation itself, as some deforestation may be necessary and even beneficial. Rather, concern about deforestation and forest degradation is driven by the many wider problems associated with this process, such as biodiversity loss and greenhouse gas emissions. As efforts to improve governance to reduce deforestation continue, more research is needed to understand what the specific forest governance processes are and how these affect forests. This research sought to contribute to this body of literature by developing two grounded theories, firstly of forest governance and secondly of corruption. These were then linked to current understanding about the process of deforestation and forest degradation to understand if and how corruption and poor governance were contributing to deforestation and forest degradation in Indonesia and PNG.

There are several findings from this thesis that contribute to the existing literature on corruption and poor governance in the forests of Indonesia and PNG. Firstly, the results of this thesis challenge the concept of rule of law in good governance. The core process of forest governance that emerged from this data was the negotiation over if and how regulations were implemented. This process is therefore in opposition to the idea that full and consistent application of the law reflects good governance. My findings suggest that the focus of *quality of governance* research is better targeted towards the process of negotiation, rather than any outcomes. In relation to corruption, the findings from this

research suggest that it is not just the corrupt exchanges themselves, but the broader systems that emerge to support and demand corrupt exchanges that also cause significant problems. Finally, I analysed the many potential mechanisms by which corruption and poor governance contribute to deforestation and forest degradation in Indonesia and PNG. The findings greatly complicate the current practice of improving governance to reduce deforestation and forest degradation—particularly given the fact that many relationships between governance and deforestation and forest degradation were indirect or negligible. However, a key point is that although corruption and poor governance do not necessarily lead to more deforestation and forest degradation, they can exacerbate the wider problems associated with deforestation as they affect the ability to plan sustainably, and to follow the principles of environmental justice. Finally, whilst no doubt there are many potential challenges and limitations to doing qualitative research on sensitive topics like corruption, the findings here identify the need for ongoing research into the issues of corruption in the forests of Indonesia and PNG, as well as other countries with significant areas of forest.

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Appendix 1. Information sheet provided to potential participants

Title of Project

Improving governance to avoid deforestation and forest degradation in Indonesia and Papua New Guinea

Period of Investigation

July 2010 - July 2010

Investigator

Fiona Downs, Natural Resource Management Program, Crawford School of Economics and Government, Australian National University Canberra Australia. This research is being conducted toward a Doctor of Philosophy degree and is conducted independently by the researcher.

Supervisor

Associate Professor Luca Tacconi, Natural Resource Management Program, Crawford School of Economics and Government, Australian National University Canberra Australia.

The goal of this study is to gain a better understanding of the impacts of different governance factors on the process of forest management in Indonesia and Papua New Guinea. Improving governance has become a dominant agenda for international, national and local organisations and is considered to be necessary to reduce the rate of deforestation and forest degradation. Poor governance is likely to become a greater concern as efforts to reduce deforestation and forest degradation as a means to address global greenhouse emissions bring renewed attention, and financial support, to countries with high rates of deforestation and forest degradation. This research seeks to understand whether and how poor governance may be contributing to deforestation and forest degradation. It also seeks to identify what governance related policies could be introduced that could bring about a reduction of deforestation and forest degradation.

The study focuses on the perceptions and experiences of people involved in forest governance including participants from government, the private sector, communities and non-government organisations. The research involves conducting semi-structured interviews with these people.

It is hoped that the analysis of these findings will provide information to policy makers and communities that will assist in efforts to avoid deforestation and forest degradation.

Key questions that that the research asks are:

- Does poor governance contribute to deforestation and forest degradation in Indonesia and Papua New Guinea? If so, how?

- What policies could be introduced which would improve governance and reduce the rate of deforestation and forest degradation?

- What impacts might the governance context have on the design and implementation of programs aimed at reducing deforestation and forest degradation for climate change reasons?

Invitation to Participate and Consent Statement

I would like to invite you to participate in the research. Your involvement would consist of an interview of up to two hours duration. The interview will be conducted in Indonesian with an interpreter to assist me. The interview will draw on your knowledge and experience of forest management in Indonesia and on your understanding of the governance context of forest management.

Participation

Participation is completely voluntary, and no payments or other direct or in-kind payments can be made for your participation. If you do agree to participate, you can withdraw at any time. If you withdraw from the research, you do not have to explain why, and all records of your involvement will be destroyed. Participation or refusal to participate will not impair any existing relationship between participants and any other institutions or people involved. You are welcome to request a copy of the summary notes from the interview. If you are agreeable I would like to audio-tape the discussion, but this is not essential

Data protection

The data from the interview will be recorded in a notebook and/or on audio-tape (as you prefer) and this will be transcribed onto computer. All responses provided will be confidential. Your name will not appear on the material, which will be securely stored by the researcher and the primary researcher will have sole access to this data. After analysis these materials will be stored at the Australian National University for five years, and will then be destroyed.

Use of data

The material from the interview will be analysed, and will be presented in summary in a thesis. It may also be used in the preparation of other publications so that the findings of the research are available to others. Unless you specifically request to be identified, neither your name nor other identifying data will be published. However, others may be able to recognise you through the type of information you provide. If information you provide is to be quoted, you will be given the opportunity to veryify the quote before the information is published.

Questions about the research

Any questions about this project may be directed to the investigator, Fiona Downs, of the Crawford School of Economics and Government, Australian National University. My telephone number is +62 81 269 14 918 or email fiona.downs@anu.edu.au.

You may also contact my supervisor in Indonesia, Dr. Krystof Obidzinski, Center for International Forestry Research (CIFOR) Forest and Governance Programme on +6281317375823 or email: k.obidzinski@cgiar.org.

If you have complaints or queries that I, or Dr Obidzinski, cannot answer to your satisfaction, you may contact the research supervisor, Associate Professor Luca Tacconi, Crawford School of Economics and Government, Australian National University, on +61 2 6125 8448 or email: luca.tacconi@anu.edu.au.

If you have any concerns or complaints regarding the conduct of this research you may also contact:

The Secretary, Human Ethics Research Committee

Research Office, Australian National University

ACT 0200 Australia

Phone: +61 (2) 6125 7945,

Email: Human.Ethics.Officer@anu.edu.au

Appendix 2. Breakdown of participants

Indonesia

Government							
District	Provincial	National	NGO	Community representatives	Industry	Other*	
12	7	5	19	10	11	8	**72**

Papua New Guinea

Government						
District	National	NGO	Community representatives	Industry	Other	
2	6	5	2	3	4	**22**

* Includes interviewees from universities, other research institutes and representatives from international organisations, such as the World Bank.

Appendix 3. Interview design and questions

Given the semi-structured and flexible interview approach, the questions listed below are indicative only. Broadly, the focus of my interviews was to understand the role of the participant and their organisation/department in the process of managing forest resources; the problems with this process as they saw it, and any potential impacts of those problems. The aim of the interviews was also to investigate the process and perceptions of corruption in the forest sector of the two countries.

Introductory questions

Interviews would begin an introduction of my research, an opportunity for the participant to ask any questions, and a confirmation that the individual was willing to participate in my research.

The formal interview would begin with several introductory style questions, designed to ease the participant into a discussion and to begin identifying key issues and future questions.

- What is the main focus of this (department/NGO)?
- What is the main work that you do?
- How long have you been working here?
- How many mines/plantations are in this district/under your authority? (for district government mining and agricultural departments)
- What is your main aim, the goal of your organisation/department?
- Who or what departments do you work most closely with?

For example

Interview with district government planning officer, Indonesia

What is the role of district planning division in the planning process? (Meeting 29, 17 March 2011).

Interview with representative from national governance NGO, Indonesia

How long has this organisation followed issues in forestry? And why have you focused on this? (Meeting 26 2 March, 2011)

Interview with representative from a forestry company, Indonesia

Could we begin with you describing your operations here, how long have you been operating and how many hectares? (Meeting 36, 24 March 2011)

Main questions and discussion

These main questions were used to further examine information provided in earlier questions and to gain greater insight into the variety of different issues that affected participants. These followed a very conversation approach, but often started as:

- What are the main problems you face in conducting your work?
- What are the main challenges in managing this (forest/mineral etc.) resource?
- Why have you chosen to focus on that?
- You mentioned the problem of _____, can you explain this in more detail?

For example

Interview with district planning officer, Indonesia. Following an answer where the respondent mentioned a lack of coordination between districts for watershed management

> What do you think are the barriers to improving this, improving the quality of coordination? (Meeting 29, 17 March, 2011)

Interview with a representative from a provincial NGO.

> Q: You said that the numbers suggest illegal logging is reducing in this province, and that this is because there is less illegal logging or because there is not much forest left. So which do you think is more likely?
>
> A: That is a question for the government. They are very proud that illegal logging has gone down and the actors that do the illegal logging are in jail, but the question for them is why has it gone down?...
>
> Q: Has legal logging also gone down?
>
> A: .... (Meeting 4, September 2010)

Interview with representative from an international organisation, Indonesia.

> If, as you said, companies are operating without a release permit, what, do you think are the reasons for this? Why don't companies get a legal release permit? (Meeting 16, November 2010)

Interview with a representative from a national NGO, Indonesia. Following an answer where the participant described how illegal logging licenses were a main focus of their campaign.

> Perhaps you could describe the formal, legal, process for getting a license?.. and then, what do you think is actually happening in the process for distributing licenses. (Meeting 7, October 10)

Interview with representative from district planning department, Indonesia.

> With matching the plan with what is actually happening in the field, what monitoring is done to make sure what is happening matches with what is planned? (Meeting 29, 17 March 11)

Interview with forestry official, PNG.

> Q: So what are the sorts of issues the technical group are focusing on now?
>
> A:...
>
> Q: What do you mean by policy development?

Interview with a representative from a plantation company, Indonesia. This is a series of questions following the participants' description of complaints by the community towards a company.

> Q: In situations like that, what does your company do?
>
> Q: How do you ensure that you have evidence of this (evidence of land ownership by community members)?
>
> Q: Is that compensation paid to the heads of villages or to individuals?

Interview with an industry representative, PNG.

You said that monitoring and enforcing is the big one. (the big challenge in PNG). In what way is this a big challenge? (Meeting 2 3 May, 2011)

Interview with forestry company representative.

Q: What do you think are the main challenges to operating in this area?
A: I would say the main challenge at the moment is changing regulations, they are always different...
Q: Changing in what way? Can you give me an example?
A: ...
Q: Why do you think they keep changing the regulations like that? (Meeting 36, 24 March 2011)

Focus questions

These questions were used to examine more specific concepts and categories to collect data on different participants understanding of concepts that were emerging. These focus questions were also used to introduce and examine the more sensitive topics like corruption.

Interview with a mining company representative, Indonesia on the topic of expectations.

Q: You have mentioned the interaction with different government departments, have you noticed any difference in expectations from the different levels/departments of government?
A: ...
Q: What do you do to deal with these different expectations? (Meeting 51, 14 July 2011).

Interview with representative from district planning department trying to introduce the topic of corruption.

So in the past, there were many problems with 'envelopes' (euphemism for corrupt payments), and reported in the early decentralisation period. Do you think that this is still occurring? (Meeting 29, 17 March, 2011)

Interview with industry representative, PNG. Following a discussion about the lack of monitoring by government.

Q: What is their excuse for not monitoring?
A: ...
Q: Is it also that the people in the field are being paid off, by companies, not to monitor their activities? (Meeting 2 3 May, 2011)

Interview with a representative from a provincial NGO, Indonesia where we discussed the issue of overlapping licenses in the forest zone.

A: Almost all the mining licenses (and palm oil) released because of collusion between the governments.
Q: Collusion in what way? Between which governments? (Meeting 4, September 2010)

Appendix 4. Examples of theoretical memos

Whilst Corbin and Strauss identified many different types of theoretical memos, in practice, my memos resembled Glaser's description of memos that simply capture the 'meaning and ideas for one's growing theory the moment they occur' (1998, p. 178). My memos varied from single sentences to several paragraphs or pages that explored emerging links between concepts. Many included comments or ideas for recoding or future interview questions.

Below I provide several examples of raw memos with some description of the conversations or conditions in which I wrote the memo. These memos are direct copies from my research notes, and as such are not polished ideas. They are meant to provide examples of how concepts emerged, how codes and characteristics of codes varied over the process of constant comparison method and my thinking about the links between codes.

Example theoretical memos

Discussions with district level forestry official (Meeting 34, 21 March 2011). This was an early memo about the code *relationships,* which did not feature in the final theory. However, this memo does demonstrate how, through the process of constant comparison method (CCM), some ideas in one code merged into other codes (in this case the codes relating to legitimacy and prioritizing).

> Maybe this code about 'relationships' needs to involve both vertical and horizontal components. It seems there is difference in the way people talk about their relationships with vertical organisations (ie. Geographical: national, provincial to district etc.) and with similar level, or horizontal organisations. So NGOS or other departments operating at the same level (be that district, provincial, national)...When [this respondent] discussed how national level 'don't understand' our condition, 'how they just come in' 'I can only report'. This is about different priorities and perceived levels of control over their own decisions.

It was different when he talking about others at the district level. This was all about consensus and he described a lot of the discussion process for planning, and how those departments asked for advice on the forestry. Showed that the conditions of the relationships and the types of interact are different. So this difference is about control and negotiation. Where with the lower levels talking about upper levels discussed the interference and control they exhibit. [Which also breeds an element of resistance from the community – and this idea that they are told what to do in Jakarta creates some support for them doing things illegally?] So, the stuff about Jakarta 'not understanding' might just be effort to justify this districts using different land plans and some of the deforestation (e.g for the airport). Might need to check more about this understanding and what they see as examples of this..

The following memo is one of the earliest memos where I identified the core variable for the grounded theories. It was written on 18 June, 2011 after a few day of interviews (none of which had been coded at the time of writing this memo).

Having met with government, politicians and NGOs over the last few day the overwhelming thing that seemed to come out was that these actors/agencies etc. have really different priorities.. Not even just that they are different across the actors (e.g. NGO to plantation company). But that within each of these groups of actors, there are also a lot of competing priorities. So when [NGO representative] was discussing how they have to work with community who need jobs etc., but at the same time they (this NGO) really trying to work against the plantation companies. Same with the government, there are the priorities like yesterday with the need for payments to secure positions etc., so these private systems. But also interests in following the procedures, helping the development of the people. So the [government representative] discussed the need to follow procedures because it is what governments do. (I think this was related to his point about how people expect the government to do the surveys and award licenses). There are a lot of different interests involved in their

decisions and the outcome of these negotiations about different priorities. There are also issues about whether there is a pattern or consistent way of organizing these priorities., particularly when they compete.

In developing the idea of semblance of legality from a discussion with a forest industry representative in Port Moresby (Meeting 2, 3 May 2011).

> There seems to be a value associated with legal and the legitimacy of that. Some of this is normal – about the importance of being legal for markets etc. But there was a strong element from [this respondent] about the impracticality of actually being legal. How hard it was to get people to check, how the rules don't match, how they are overly complicated etc. But at the end of the day, [this respondent] said that still need the paper. So it is about the appearance of being legal, rather than the actual benefit to management/environment etc. of being legal.
>
> This might be one side of the negotiation process, or have to do with balancing out the authority of businesses.

The following memo (2 June, 2011) records some later thinking about the code of *managing expectations* and how it fits to the higher-level codes of legitimacy and control. This memo demonstrates the kind of links that I sought to just get down on paper so that they could then guide future data collection and coding.

> This idea of managing expectations may actually be best described as a controlling strategy, rather than just about legitimacy. The way [this respondent] described socialization by this company to the communities, seemed more like control for the negotiation. The bit about how they (the community) think that the company will do everything and this person has to explain to them that they (company) may help, but not going to do things like that. How from the beginning he said needed to explain to communities that the company isn't going to provide anything and the community must work. This is to try to limit the expectation of community

and reduce the burden on company. He described it as important so that then they can limit what they expected to do for the community, but also better negotiate what is important for community and for company so that in better position to negotiate. Might need to relook at those early codes on expectations and see if this interview is different in the control element.

The following memo (Meeting 5, 9 May 2011) recorded a key idea about political interference and corruption in PNG. Following this memo, I rechecked the existing interviews to code for this idea and the issue of political interference became one of the key elements of the grounded theory on corruption.

The description about keeping MD (managing director of PNG Forest Authority) as acting was interesting. This is about how politicians can bypass the rules about interference and manage to get the actual bureaucrats etc. dependent on them. In PNG, this acting thing works well. Will have to check the Indonesian data to see if there are other strategies that are used to interfere for corrupt/private benefits. I think it has components related to setting up condition to facilitate future corrupt opportunities. This could be linked to the whole argument about not just focusing on the corrupt exchange but the problems associated with facilitating conditions and people messing with the system so that they can position themselves for future corruption.

Appendix 5. Land-use plans for Central Kalimantan

Name of Land Use Plan	Ministry/regions	Fixed forest area (*hutan tetap seluas*)		Conversion forest area (*Hutan Konversi seluas*)		Non-forest area (*Non Kawasan hutan seluas*)	
		Ha	%	Ha	%	Ha	%
Forest Land use agreement (1982) Tata Guna Hutan Kesepakatan (TGHK) 1982	Ministry	11017919	71.89	4302181	28.11	_	_
Regional regulation Number 5. 1993 Perda No. 5 Tahun 1993	Region	11149145	72.6	_	_	4207255	27.4
Governors Decision Classify Provincial land use plan (2003) with the Forest Land use agreement (1982) KepGUP Tahun 1999 (paduserasi RTRWP-TGHK)	Region	10440111	66.08	_	_	5358248.24	33.92
Regional Regulation Number 8, 2003 PERDA No. 8 Tahun 2003	Region	10294880	67.04	_	_	5061846.46	32.96
Proposed Provincial land use plan, 2007 Usulan RTRWP Tahun 2007	Region	8465220.6	54.93	_	_	6945291.65	45.07
TGHK Update	Ministry	10795936	69.81	3290155	21.27	1379542	8.92
Result of Integrated Team Hasil Tim Terpadu	Integrated	10105549	66.28	2539729	16.65	2603504	17.07

Source: Provincial forestry planning department. June 2011.